# 2010 Bay Area HOV Lanes



Volumes, occupancies and violation rates for freeway High Occupancy Vehicle Lanes in the San Francisco Bay Area



California Department of Transportation
District 4 Oakland
Office of Highway Operations



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#### INTRODUCTION

he ANNUAL HOV LANE REPORT is prepared by the California Department of Transportation (Caltrans) District 4 Office of Highway Operations. This report contains information concerning High Occupancy Vehicle (HOV) lanes on the San Francisco Bay Area freeway system. Traffic performance data for mainline HOV lanes and HOV toll gates are provided for calendar year 2010. This data includes, traffic volumes, vehicle occupancies, HOV lane time savings, and HOV lane violation rates. Generally data for this report is collected twice annually — once in the spring and once in the fall — when normal commute traffic patterns and conditions usually occur. However due to resource constraints only spring data for 2010 was collected. Volumes and occupancy data for HOV bypass lanes at metered freeway on-ramps are not included in this annual report; however, general information on these ramps is included. The intent of this HOV lane monitoring report is to compile statistics and measurements of collected data. This report should not be construed to be a conclusion on the performance of HOV lanes. In the future this report will be known as the Bay Area Managed Lanes report, as the report will include information and data on both HOV Lanes and Express Lanes, Managed Lanes are lanes that include strategies implemented to manage traffic demand in order to improve the efficiency and performance of corridors with high congestion.

#### Major changes in 2010:

- A new section of HOV Lane on eastbound Interstate 580 from N. Livermore Ave. to Airway Blvd., in Alameda County, opened to traffic on July 19, 2010 and was extended from Airway Blvd. to Hacienda Blvd. on November 5, 2010. The limits of the HOV Lane are from Hacienda Blvd. to Greenville Rd., a distance of 10.4 miles.
- The HOV lane on southbound Interstate 680 from Route 84 to Route 237 in Alameda and Santa Clara County was converted into an Express Lane on September 20, 2010. This Express Lane allows single occupancy vehicles (SOVs) access for a fee while 2+ HOVs still have access to this lane free of charge. This Express Lane is buffer separated from the mixed-flow lanes with limited ingress and egress locations.
- Beginning on July 1, 2010 HOVs are required to pay a toll of \$2.50 during the HOV
  lane hours of operation at the seven state owed toll bridges in the San Francisco Bay
  Area. Previously HOVs were not charged a toll to cross these bridges.

HOV Report Website: This report is available at www.dot.ca.gov/dist4/.

**ACKNOWLEDGMENTS:** The following Caltrans personnel contributed to the preparation of this report:

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Department of Transportation

District 4

Office of Highway Operations

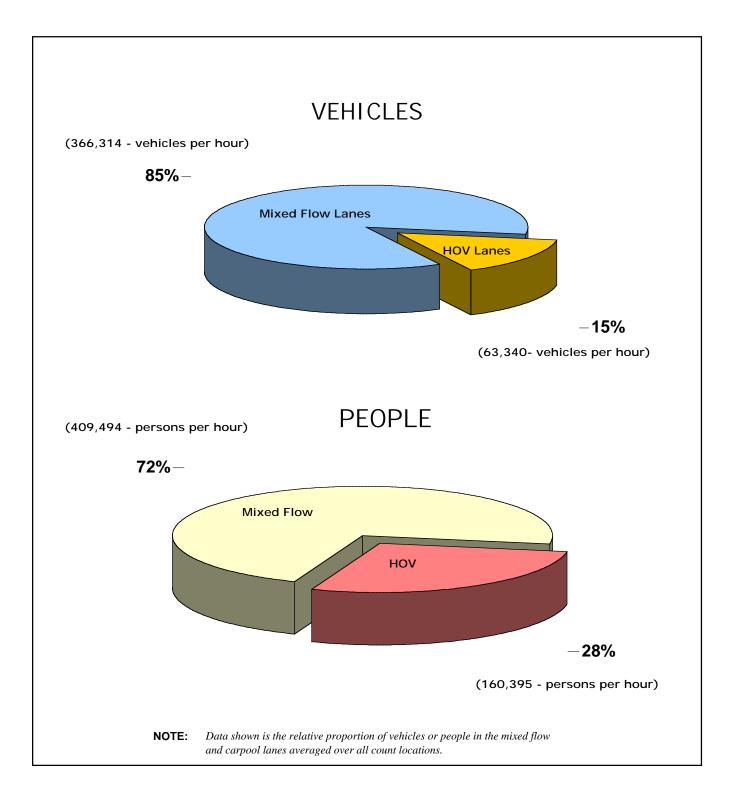
High-Occupancy Vehicle Lanes in the Bay Area

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- Comparison of HOV Lanes vs. Mixed Flow Lanes
- Existing Mainline HOV Lanes
- Metered On-Ramps with HOV Bypasses
- Non-Metered HOV Lane On-Ramp
- Mainline HOV Lanes Under Construction

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### COMPARISON OF HOV LANES VS. MIXED FLOW LANES (Peak-Hour)



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#### **EXISTING MAINLINE HOV LANES**

| Route       | Dir | Dir Limits  |      | Lane-<br>miles | Min.<br>occ. | Period of operation*   |  |  |
|-------------|-----|---|------|----------------|--------------|------------------------|--|--|
| ALA-80      | W/B | Bay Bridge Toll Plaza                             | 1.1  | 3+             | 5-10 AM      | 3-7 PM                 |  |  |
| ALA-80      | W/B | Contra Costa Co. Line to Powell St.               | 4.2  | 3+             | 5-10 AM      | 3-7 PM                 |  |  |
|             | E/B | I 880 Viaduct to Contra Costa Co. Line            | 5.8  | 3+             | 5-10 AM      | 3-7 PM                 |  |  |
| ALA-84      | W/B | I-880 to Dumbarton Bridge Toll Plaza              | 2.8  | 2+             | 5-10 AM      | 3-6 PM                 |  |  |
| ALA-92      | W/B | Hesperian Blvd to San Mateo Bridge Toll Plaza     | 2.8  | 2+             | 5-10 AM      | 3-6 PM                 |  |  |
| ALA-580     | E/B | Hacienda Dr to Greenville Rd                      | 10.4 | 2+             | 5-9 AM       | 3-7 PM                 |  |  |
| ALA-680     | S/B | Route 84 to SCL County Line ^                     | 11.2 | 2+             | 5:00 AM - 8  | 3:00 PM                |  |  |
| ALA-880     | S/B | Marina Blvd to Santa Clara Co. Line               | 22.5 | 2+             | 5-9 AM       | 3-7 PM                 |  |  |
|             | N/B | Santa Clara Co. Line to South of Rte 238 I/C      | 19.1 | 2+             | 5- 9 AM      | 3-7 PM                 |  |  |
| ALA-880     | N/B | West Grand Ave to Rte 80                          | 1.1  | 3+             | 5-10 AM      | 3-7 PM                 |  |  |
| ALA-880     | N/B | 16th Street to SFOBB Toll Plaza                   | 1.4  | 3+             | 5-10 AM      | 3-7 PM                 |  |  |
| CC-04       | W/B | Loveridge Road to Port Chicago Hwy                | 8.7  | 2+             | 5-9 AM       |                        |  |  |
|             | E/B | Port Chicago Hwy to Railroad Ave.                 | 7.3  | 2+             |              | 3-7 PM                 |  |  |
| CC-80       | W/B | Solano Co. Line to Alameda Co. Line               | 14.1 | 3+             | 5-10 AM      | 3-7 PM                 |  |  |
|             | E/B | Alameda Co. Line to Rte 4                         | 9.5  | 3+             | 5-10 AM      | 3-7 PM                 |  |  |
| CC-680      | N/B | Benicia-Martinez Bridge Toll Plaza                | 1.0  | 3+             | 5-10 AM      | 3-7PM                  |  |  |
| CC-680      | S/B | Marina Vista to N/O N. Main St.                   | 7.8  | 2+             | 5-9 AM       | 3-7 PM                 |  |  |
|             | N/B | Route 242 to Marina Vista I/C                     | 4.4  | 2+             | 5- 9 AM      | 3-7 PM                 |  |  |
| CC-680      | S/B | Livorna Rd to Alcosta Blvd                        | 11.9 | 2+             | 5- 9 AM      | 3-7 PM                 |  |  |
|             | N/B | Alcosta Blvd to Livorna Rd                        | 11.9 | 2+             | 5- 9 AM      | 3-7 PM                 |  |  |
| MRN-101     | S/B | Route 37 to Richardson Bridge                     | 14.1 | 2+             | 6:30-8:30 A  | M                      |  |  |
|             | N/B | Richardson Bridge to Route 37                     | 14.4 | 2+             |              | 4:30-7 PM              |  |  |
| SCL-85      | S/B | Rte 101 (Mountain View) to Rte 101 (So. San Jose) | 23.8 | 2+             | 5- 9 AM      | 3-7 PM                 |  |  |
|             | N/B | Rte 101 (So. San Jose) to Rte 101 (Mt. View)      | 24.2 | 2+             | 5- 9 AM      | 3-7 PM                 |  |  |
| SCL-87      | SB  | Route 101 I/C to Route 85 I/C                     | 9.6  | 2+             | 5- 9 AM      | 3-7 PM                 |  |  |
|             | NB  | Route 85 I/C to Route 101 I/C                     | 9.2  | 2+             | 5- 9 AM      | 3-7 PM                 |  |  |
| SCL-101     | S/B | San Mateo Co. Line to Cochrane Rd                 | 34.2 | 2+             | 5- 9 AM      | 3-7 PM                 |  |  |
|             | N/B | Cochrane Rd to San Mateo Co. Line                 | 34.8 | 2+             | 5- 9 AM      | 3-7 PM                 |  |  |
| SCL-237     | W/B | Jct. Rte 880/237 to Mathilda Ave                  | 6.1  | 2+             | 5- 9 AM      | 3-7 PM                 |  |  |
|             | E/B | Mathilda Ave to Rte 880/237 Jct.                  | 6.5  | 2+             | 5- 9 AM      | 3-7 PM                 |  |  |
| SCL-280     | S/B | Magdalena Ave to Meridian Ave                     | 10.5 | 2+             | 5- 9 AM      | 3-7 PM                 |  |  |
|             | N/B | Leland Ave to Magdalena Ave                       | 10.8 | 2+             | 5- 9 AM      | 3-7 PM                 |  |  |
| SCL-680     | S/B | ALA Co. Line to Rte 237 Calaveras Blvd. ^         | 2.3  | 2+             | 5:00 AM - 8  |                        |  |  |
| SCL-880     | S/B | Alameda Co. Line to I-880/SR 237 Junction         | 2.0  | 2+             | 5- 9 AM      | 3-7 PM                 |  |  |
|             | N/B | I-880/SR 237 Junction to Alameda Co. Line         | 2.0  | 2+             | 5- 9 AM      | 3-7 PM                 |  |  |
| SM-101      | S/B | Whipple Ave to Santa Clara Co. Line               | 6.7  | 2+             | 5- 9 AM      | 3-7 PM                 |  |  |
| · · · · · · | N/B | Santa Clara Co. Line to Whipple Ave               | 6.9  | 2+             | 5- 9 AM      | 3-7 PM                 |  |  |
| SOL-80      | W/B | Route 29 to Contra Costa Co. Line                 | 0.9  | 3+             | 5-10 AM      | 3-7 PM                 |  |  |
| 502 00      | E/B | Carguinez Bridge Toll Plaza                       | 0.9  | 3+             | 5-10 AM      | 3-7 PM                 |  |  |
| SOL-80      | W/B | East of Airbase Parkway to Red Top Rd             | 8.1  | 2+             | 5-10 AM      | 3-7 PM                 |  |  |
| JOE 00      | E/B | Red Top Rd to East of Airbase Parkway             | 8.2  | 2+             | 5-10 AM      | 3-7 PM                 |  |  |
| SON-101     | S/B | Windsor River Road to Wilfred Avenue              |      | 2+             | 7- 9 AM      |                        |  |  |
| JOI4-101    | N/B | Wilfred Avenue to Windsor River Road              | 13.8 | 2+             | 7- 9 AM      | 3-6:30 PM<br>3-6:30 PM |  |  |

TOTAL EXISTING LANE-MILES

421.8

NOTE: \* All HOV lanes currently operate Monday thru Friday.

^ Express Lane opened September 20, 2010

#### **METERED ON-RAMPS with HOV BYPASS LANES**

| Route   | Dir |                                   |        | HOVL Date opened | Notes        |             |
|---------|-----|-----------------------------------|--------|------------------|--------------|-------------|
| ALA-580 | EB  | Airway Boulevard Loop             | 24 hrs | Yes              | Jan 22, 2008 | 7 days/week |
| ALA-580 | EB  | El Charro Road diagonal           | 24 hrs | Yes              | Nov 17, 2009 | 7 days/week |
| ALA-580 | EB  | El Charro Road Loop               | 24 hrs | Yes              | Oct 7, 2009  | 7 days/week |
| ALA-580 | EB  | N/B Hacienda diagonal             | 24 hrs | Yes              | Jun 30, 2003 | 7 days/week |
| ALA-580 | EB  | Hopyard Road Loop                 | 24 hrs | Yes              | Jun 30, 2003 | 7 days/week |
| ALA-580 | EB  | San Ramon/Foothill Blvd NB diagon | 24 hrs | Yes              | Jan 22, 2008 | 7 days/week |
| ALA-580 | WB  | Airway Boulevard Loop             | 24 hrs | Yes              | Sep 16, 2008 | 7 days/week |
| ALA-580 | WB  | Airway Boulevard Diagonal         | 24 hrs | Yes              | Sep 16, 2008 | 7 days/week |
| ALA-580 | WB  | Fallon Road Loop                  | 24 hrs | Yes              | Nov 23, 2009 | 7 days/week |
| ALA-580 | WB  | Fallon Road Diagonal              | 24 hrs | Yes              | Nov 23, 2009 | 7 days/week |
| ALA-580 | WB  | S/B Santa Rita Rd Diagonal        | 24 hrs | Yes              | Sep 16, 2008 | 7 days/week |
| ALA-580 | WB  | NB Hacienda Dr. Loop              | 24 hrs | Yes              | Sep 16, 2008 | 7 days/week |
| ALA-580 | WB  | SB Hacienda Dr Diagonal           | 24 hrs | Yes              | Sep 16, 2008 | 7 days/week |
| ALA-580 | WB  | Hopyard Road Loop                 | 24 hrs | Yes              | Sep 16, 2008 | 7 days/week |
| ALA-580 | WB  | Hopyard Road Diagonal             | 24 hrs | Yes              | Sep 16, 2008 | 7 days/week |
| ALA-580 | WB  | San Ramon/Foothill Blvd SB diagon | 24 hrs | Yes              | Sep 16, 2008 | 7 days/week |
| ALA-880 | NB  | Dixon Landing diagonal            | 24 hrs | Yes              | Mar 30, 2004 | 7 days/week |
| ALA-880 | NB  | Warren Avenue loop                | 24 hrs | Yes              | May 25, 2010 | 7 days/week |
| ALA-880 | NB  | s/b Mission Blvd.(Rte262)         | 24 hrs | Yes              | May 25, 2010 | 7 days/week |
| ALA-880 | NB  | Fremont Blvd loop                 | 24 hrs | Yes              | Oct 20, 1999 | 7 days/week |
| ALA-880 | NB  | Auto Mall Pkwy(Durham) loop       | 24 hrs | Yes              | Oct 20, 1999 | 7 days/week |
| ALA-880 | NB  | Auto Mall Pkwy(Durham)diag        | 24 hrs | Yes              | Oct 20, 1999 | 7 days/week |
| ALA-880 | NB  | Stevenson Blvd. diagonal          | 24 hrs | Yes              | Oct 20, 1999 | 7 days/week |
| ALA-880 | NB  | E/B Mowry Ave loop                | 24 hrs | Yes              | Oct 20, 1999 | 7 days/week |
| ALA-880 | NB  | Thornton Ave loop                 | 24 hrs | Yes              | Oct 20, 1999 | 7 days/week |
| ALA-880 | NB  | Thornton Ave diagonal             | 24 hrs | Yes              | Oct 20, 1999 | 7 days/week |
| ALA-880 | NB  | Alvarado-Fremont Blvd diag        | 24 hrs | Yes              | Oct 20, 1999 | 7 days/week |
| ALA-880 | NB  | Alvarado-Niles Rd diagonal        | 24 hrs | Yes              | Oct 20, 1999 | 7 days/week |
| ALA-880 | NB  | Industrial Parkway diagonal       | 24 hrs | Yes              | Dec 3, 1996  | 7 days/week |
| ALA-880 | NB  | Tennyson Rd diag                  | 24 hrs | Yes              | Dec 3, 1996  | 7 days/week |
| ALA-880 | NB  | West A-Street diag                | 24 hrs | Yes              | Dec 3, 1996  | 7 days/week |
| ALA-880 | NB  | Lewelling Blvd diagonal           | 24 hrs | Yes              | Apr 28, 1999 | 7 days/week |
| ALA-880 | NB  | 98th Ave loop                     | 24 hrs | Yes              | Apr 28, 1999 | 7 days/week |
| ALA-880 | NB  | E/B 23rd Ave. diag                | 24 hrs | Yes              | Apr 28, 1999 | 7 days/week |
| ALA-880 | SB  | Dixon Landing Loop                | 24hrs  | Yes              | Mar 30, 2004 | 7 days/week |
| ALA-880 | SB  | Mission Blvd connector            | 24hrs  | Yes              | May 25, 2010 | 7 days/week |
| ALA-880 | SB  | Warren Avenue loop                | 24hrs  | Yes              | May 25, 2010 | 7 days/week |
| ALA-880 | SB  | Fremont Blvd. diag                | 24 hrs | Yes              | Oct 19, 1999 | 7 days/week |
| ALA-880 | SB  | Fremont Blvd. loop                | 24 hrs | Yes              | Oct 19, 1999 | 7 days/week |
| ALA-880 | SB  | Auto Mall Pkwy(Durham)Diag        | 24 hrs | Yes              | Oct 19, 1999 | 7 days/week |
| ALA-880 | SB  | Auto Mall Pkwy(Durham)loop        | 24 hrs | Yes              | Oct 19, 1999 | 7 days/week |
| ALA-880 | SB  | W/B Mowry Ave loop                | 24 hrs | Yes              | Oct 19, 1999 | 7 days/week |
| ALA-880 | SB  | Thornton Ave. diagonal            | 24 hrs | Yes              | Oct 19, 1999 | 7 days/week |
| ALA-880 | SB  | Thornton Ave. loop                | 24 hrs | Yes              | Oct 19, 1999 | 7 days/week |
| ALA-880 | SB  | Alvarado-Fremont Blvd diag        | 24 hrs | Yes              | Oct 19, 1999 | 7 days/week |

NOTES: (a) Minimum occupancy requirement for all HOV bypass lanes is two persons per vehicle.

<sup>(</sup>b) Motorcycles and inherently low-emission vehicles (ILEVs) and hybrids with DMV issued decal are permitted

#### **METERED ON-RAMPS with HOV BYPASS LANES**

| Route   | Dir | Ramp                         | Hours         | HOVL metered? | HOVL Date opened | Notes           |
|---------|-----|------------------------------|---------------|---------------|------------------|-----------------|
| ALA-880 | SB  | Alvarado-Niles Rd diagonal   | 24 hrs        | Yes           | Oct 19, 1999     | 7 days/week     |
| ALA-880 | SB  | Alvarado-Niles Rd loop       | 24 hrs        | Yes           | Oct 19, 1999     | 7 days/week     |
| ALA-880 | SB  | Whipple Rd diag              | 24 hrs        | Yes           | Oct 29, 1996     | 7 days/week     |
| ALA-880 | SB  | Tennyson Rd diag             | 24 hrs        | Yes           | Oct 29, 1996     | 7 days/week     |
| ALA-880 | SB  | Winton Ave diag              | 24 hrs        | Yes           | Oct 29, 1996     | 7 days/week     |
| ALA-880 | SB  | West A-Street diag           | 24 hrs        | Yes           | Oct 29, 1996     | 7 days/week     |
| ALA-880 | SB  | E/B Davis St(Route 112) diag | 24 hrs        | Yes           | Apr 27, 1999     | 7 days/week     |
| ALA-880 | SB  | W/B Davis St(Route 112)loop  | 24 hrs        | Yes           | Apr 27, 1999     | 7 days/week     |
| ALA-880 | SB  | 98th Ave diagonal            | 24 hrs        | Yes           | Apr 27, 1999     | 7 days/week     |
| ALA-880 | SB  | Hegenberger diagonal         | 24 hrs        | Yes           | Apr 27, 1999     | 7 days/week     |
| ALA-880 | SB  | Oak St. diagonal             | 24 hrs        | Yes           | Apr 27, 1999     | 7 days/week     |
| SCL-17  | NB  | Camden Ave diag              | 24 hrs        | Yes           | May 11, 2007     | 7 days/week     |
| SCL-85  | NB  | SB Rte 101 connector         | 5-9am & 3-7pm | Yes           | Sep 20, 2004     | Monday - Friday |
| SCL-85  | NB  | SB Rte 87 connector          | 5-9am & 3-7pm | Yes           | Jul 8, 2003      | Monday - Friday |
| SCL-85  | NB  | Bernal Rd Loop               | 24 hrs        | Yes           | Sep 20, 2004     | 7 days/week     |
| SCL-85  | NB  | Bernal Rd diag               | 24 hrs        | Yes           | Aug 26, 1994     | 7 days/week     |
| SCL-85  | NB  | Great Oaks Blvd diag         | 24 hrs        | Yes           | Aug 19, 1994     | 7 days/week     |
| SCL-85  | NB  | Cottle Rd diag               | 24 hrs        | Yes           | Aug 19, 1994     | 7 days/week     |
| SCL-85  | NB  | Blossom Hill Rd loop         | 24 hrs        | Yes           | Aug 19, 1994     | 7 days/week     |
| SCL-85  | NB  | Santa Teresa Blvd loop       | 24 hrs        | Yes           | Oct 19, 1994     | 7 days/week     |
| SCL-85  | NB  | Almaden Expwy loop           | 24 hrs        | Yes           | Mar 19, 1999     | 7 days/week     |
| SCL-85  | NB  | Bascom Ave diag              | 24 hrs        | Yes           | Oct 19, 1994     | 7 days/week     |
| SCL-85  | NB  | Winchester Blvd diag         | 24 hrs        | Yes           | Nov 14, 1994     | 7 days/week     |
| SCL-85  | NB  | Saratoga Ave diag            | 24 hrs        | Yes           | Oct 20, 1994     | 7 days/week     |
| SCL-85  | SB  | Almaden Expwy diag           | 24 hrs        | Yes           | Oct. 19, 1994    | 7 days/week     |
| SCL-85  | SB  | Bascom Ave diag              | 24 hrs        | Yes           | Oct. 19, 1994    | 7 days/week     |
| SCL-85  | SB  | Camden Ave diag              | 24 hrs        | Yes           | Apr 4, 1995      | 7 days/week     |
| SCL-85  | SB  | Stevens Creek diag           | 24 hrs        | Yes           | Oct 19, 1994     | 7 days/week     |
| SCL-87  | NB  | Rte 85 SB Connector          | 24 hrs        | Yes           | Jan 13, 2009     | 7 days/week     |
| SCL-87  | NB  | Curtner Ave diag             | 24 hrs        | Yes           | Mar 16, 2007     | 7 days/week     |
| SCL-87  | NB  | Almaden Expwy diag           | 24 hrs        | Yes           | May 11, 2007     | 7 days/week     |
| SCL-87  | NB  | Lelong St diag               | 24 hrs        | Yes           | May 11, 2007     | 7 days/week     |
| SCL-87  | NB  | Park Avenue diag             | 24 hrs        | Yes           | Jan 13, 2009     | 7 days/week     |
| SCL-87  | NB  | Julian St diag               | 24 hrs        | Yes           | Jan 13, 2009     | 7 days/week     |
| SCL-87  | NB  | Taylor St. diag              | 24 hrs        | Yes           | Jan 13, 2009     | 7 days/week     |
| SCL-87  | NB  | Skyport Blvd diag            | 24 hrs        | Yes           | Jan 13, 2009     | 7 days/week     |
| SCL-87  | SB  | Auzerias Ave/Delma St diag   | 24 hrs        | Yes           | Apr 7, 2009      | 7 days/week     |
| SCL-87  | SB  | EB Julian St diag            | 24 hrs        | Yes           | Apr 7, 2009      | 7 days/week     |
| SCL-87  | SB  | Taylor St. diag              | 24 hrs        | Yes           | Apr 7, 2009      | 7 days/week     |
| SCL-87  | SB  | Skyport Blvd diag            | 24 hrs        | Yes           | Apr 7, 2009      | 7 days/week     |

#### **METERED ON-RAMPS with HOV BYPASS LANES**

| Route   | Dir | Ramp                     | Hours    | HOVL metered? | HOVL Date opened | Notes           |
|---------|-----|--------------------------|----------|---------------|------------------|-----------------|
| SCL-101 | NB  | Bernal Rd diagonal       | 24 hrs   | Yes           | Aug 1, 2005      | 7 days/week     |
| SCL-101 | NB  | Blossom Hill diag        | 24 hrs   | Yes           | Jun 23, 1992     | 7 days/week     |
| SCL-101 | NB  | Capitol Expwy diag       | 24 hrs   | Yes           | Jul 11, 1997     | 7 days/week     |
| SCL-101 | NB  | SB Rte 680 connector     | 5:30-9am | Yes           | Sep 2, 1982      | Monday - Friday |
| SCL-101 | NB  | Guadalupe Pkwy connector | 5:30-9am | Yes           | Feb 12, 1980     | Monday - Friday |
| SCL-101 | NB  | Trimble Rd diag          | 24 hrs   | Yes           | Nov 1, 1991      | 7 days/week     |
| SCL-101 | NB  | San Tomas Expwy loop     | 5:30-9am | Yes           | Feb 12, 1980     | Monday - Friday |
| SCL-101 | NB  | Montague Expwy diag      | 24 hrs   | Yes           | Feb 12, 1980     | 7 days/week     |
| SCL-101 | NB  | Lawrence Expwy (nb) loop | 24 hrs   | Yes           | Mar 8, 1999      | 7 days/week     |
| SCL-101 | NB  | Lawrence Expwy (sb)diag  | 24 hrs   | Yes           | Mar 8, 1999      | 7 days/week     |
| SCL-101 | SB  | Bernal Rd diagonal       | 24 hrs   | Yes           | Aug 1, 2005      | 7 days/week     |
| SCL-101 | SB  | Blossom Hill diag        | 24 hrs   | Yes           | Jun 23, 1992     | 7 days/week     |
| SCL-101 | SB  | Capitol Expwy diag       | 24 hrs   | Yes           | Jul 11, 1997     | 7 days/week     |
| SCL-101 | SB  | SB Rte 680 connector     | 5:30-9am | Yes           | Sep 2, 1982      | Monday - Friday |
| SCL-101 | SB  | Guadalupe Pkwy connector | 5:30-9am | Yes           | Feb 12, 1980     | Monday - Friday |
| SCL-101 | SB  | Trimble Rd diag          | 24 hrs   | Yes           | Nov 1, 1991      | 7 days/week     |
| SCL-101 | SB  | San Tomas Expwy loop     | 5:30-9am | Yes           | Feb 12, 1980     | Monday - Friday |
| SCL-101 | SB  | Montague Expwy diag      | 24 hrs   | Yes           | Feb 12, 1980     | 7 days/week     |
| SCL-101 | SB  | Lawrence Expwy (nb) loop | 24 hrs   | Yes           | Mar 8, 1999      | 7 days/week     |
| SCL-101 | SB  | Lawrence Expwy (sb)diag  | 24 hrs   | Yes           | Mar 8, 1999      | 7 days/week     |
| SCL-101 | SB  | De La Cruz Blvd. Diag    | 24 hrs   | Yes           | Nov 9, 2009      | 7 days/week     |
| SCL-101 | SB  | Trimble Rd loop          | 24 hrs   | Yes           | Nov 9, 2009      | 7 days/week     |
| SCL-101 | SB  | Montague Expwy diag      | 24 hrs   | Yes           | Nov 9, 2009      | 7 days/week     |
| SCL-101 | SB  | Montague Expwy loop      | 24 hrs   | Yes           | Nov 9, 2009      | 7 days/week     |
| SCL-101 | SB  | Bowers Ave Diag.         | 24 hrs   | Yes           | Nov 9, 2009      | 7 days/week     |
| SCL-101 | SB  | Great America Pkwy Loop  | 24 hrs   | Yes           | Nov 9, 2009      | 7 days/week     |
| SCL-101 | SB  | Lawrence Expwy Diag      | 24 hrs   | Yes           | Nov 9, 2009      | 7 days/week     |
| SCL-101 | SB  | Lawrence Expwy Loop      | 24 hrs   | Yes           | Nov 9, 2009      | 7 days/week     |
| SCL-101 | SB  | Fair Oaks Ave. Diag      | 24 hrs   | Yes           | Nov 9, 2009      | 7 days/week     |
| SCL-101 | SB  | Fair Oaks Ave. Loop      | 24 hrs   | Yes           | Nov 9, 2009      | 7 days/week     |
| SCL-101 | SB  | Mathilda Ave. Diag       | 24 hrs   | Yes           | Nov 9, 2009      | 7 days/week     |
| SCL-101 | SB  | Mathilda Ave. Loop       | 24 hrs   | Yes           | Nov 9, 2009      | 7 days/week     |
| SCL-101 | SB  | Ellis Street Diag        | 24 hrs   | Yes           | Nov 9, 2009      | 7 days/week     |
| SCL-101 | SB  | Moffet Blvd. Diag        | 24 hrs   | Yes           | Nov 9, 2009      | 7 days/week     |
| SCL-101 | SB  | Shoreline Blvd. Diag     | 24 hrs   | Yes           | Nov 9, 2009      | 7 days/week     |
| SCL-101 | SB  | Rengstorff Ave. Diag     | 24 hrs   | Yes           | Nov 9, 2009      | 7 days/week     |
| SCL-101 | SB  | Oregon Xpwy. Diag        | 24 hrs   | Yes           | Nov 9, 2009      | 7 days/week     |
| SCL-101 | SB  | Embarcadero Ro. Loop     | 24 hrs   | Yes           | Nov 9, 2009      | 7 days/week     |
| SCL-237 | EB  | Lawrence Expwy diag      | 24 hrs   | Yes           | Aug. 14, 1998    | 7 days/week     |
| SCL-237 | EB  | Great America Pkwy diag  | 24 hrs   | Yes           | Sep 24, 1996     | 7 days/week     |
| SCL-237 | EB  | N. First Street diag     | 24 hrs   | Yes           | Sep 24, 1996     | 7 days/week     |
| SCL-237 | EB  | Zanker Rd diag           | 24 hrs   | Yes           | Sep 24, 1996     | 7 days/week     |

#### **METERED ON-RAMPS with HOV BYPASS LANE**

| Route   | Dir | Ramp                        | Hours  | HOVL metered? | HOVL Date opened | Notes           |
|---------|-----|-----------------------------|--------|---------------|------------------|-----------------|
| SCL-280 | NB  | Wolfe Rd loop               | 6-9 am | Yes           | Jun 8, 1976      | Monday - Friday |
| SCL-280 | SB  | Wolfe Rd loop               | 24 hrs | Yes           | Apr 27, 1993     | 7 days/week     |
| SCL-280 | SB  | Wolfe Rd diag               | 24 hrs | Yes           | Apr 27, 1993     | 7 days/week     |
| SCL-280 | SB  | De Anza Blvd diag           | 24 hrs | Yes           | Apr 27, 1993     | 7 days/week     |
| SCL-880 | SB  | SB Coleman Ave diag         | 24 hrs | Yes           | Jul 27, 2007     | 7 days/week     |
| SCL-880 | SB  | NB Coleman Ave loop         | 24hrs  | Yes           | Jul 27, 2007     | 7 days/week     |
| SCL-880 | NB  | Calaveras Blv (wb) (diag)   | 24 hrs | Yes           | Sep 9, 2003      | 7 days/week     |
| SCL-880 | SB  | Dixon Landing diagonal      | 24hrs  | Yes           | Mar 30, 2004     | 7 days/week     |
|         |     |                             |        |               |                  |                 |
| SM-101  | NB  | SB Marsh Rd diag            | 24 hrs | Yes           | Feb 27, 2007     | 7 days/week     |
| SM-101  | NB  | SB Woodside diag            | 24 hrs | Yes           | Feb 27, 2007     | 7 days/week     |
| SM-101  | NB  | EB Holly St collector       | 24 hrs | Yes           | Feb 27, 2007     | 7 days/week     |
| SM-101  | NB  | WB Holly St diag            | 24 hrs | Yes           | Feb 27, 2007     | 7 days/week     |
| SM-101  | NB  | EB Ralston/Marine collector | 24 hrs | Yes           | Feb 27, 2007     | 7 days/week     |
| SM-101  | NB  | WB Ralston/Marine diag      | 24 hrs | Yes           | Feb 27, 2007     | 7 days/week     |
| SM-101  | NB  | EB Hillsdale Blvd loop      | 24 hrs | No            | Feb 27, 2007     | 7 days/week     |
| SM-101  | SB  | NB Marsh Rd diag            | 24 hrs | Yes           | Jan 30, 2007     | 7 days/week     |
| SM-101  | SB  | NB Woodside diag            | 24 hrs | Yes           | Jan 30, 2007     | 7 days/week     |
| SM-101  | SB  | EB Whipple Ave diag         | 24 hrs | Yes           | Jan 30, 2007     | 7 days/week     |
| SM-101  | SB  | Ralston-Harbor collector    | 24 hrs | Yes           | Jan 30, 2007     | 7 days/week     |
| SM-280  | NB  | Westborough Blvd. Diag      | 24 hrs | Yes           | Oct 21, 2008     | 7 days/week     |

#### **NON-METERED HOV LANE ON-RAMP**

| Route | Dir | Ramp                         | Hours        | HOVL metered? | HOVL Date opened | Notes |
|-------|-----|------------------------------|--------------|---------------|------------------|-------|
| SF-80 | EB  | Sterling St on-ramp to SFOBB | 3:30-7:00 PM | No            | Aug 30, 1982     |       |

#### **NOTES** (a) Minimum occupancy requirement is 3 or more persons per vehicle.

<sup>(</sup>b) 2 - seater vehicles with 2 persons, motorcycles, trucks and inherently low-emission vehicles (ILEVs) and hybrids with DMV issued decal are permitted.

#### MAINLINE HOV LANES UNDER CONSTRUCTION

| Estimated<br>Opening | County<br>Route | Location                              | Lane<br>Miles | Min.<br>Occ. |
|----------------------|-----------------|---------------------------------------|---------------|--------------|
| 2013                 | CC-4            | Loveridge to Somersville              | 4.2           | 2+           |
| 2011                 | CC-80           | West of Rte 4 to Cummings Skyway (EB) | 3.4           | 3+           |
| 2011                 | SON-101         | Pepper Rd to Rohnert Park Exprwy      | 10.0          | 2+           |
| 2010                 | SON-101         | Rohnert Park Expwy to Wilfred Ave.    | 3.2           | 2+           |

TOTAL LANE-MILES UNDER CONSTRUCTION 20.8

#### **DATA SUMMARIES**

- HOV Lane Peak Hour Volumes
- HOV & Non-HOV Lane Peak Hour Comparisons
- HOV Lane Peak Period Violation Rates
- HOV Lane Peak Hour Time Savings and Average Speeds

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#### **HOV LANE PEAK HOUR VOLUMES**

|         |     |   | <b>A.M.</b><br>Peak Hr (veh) | P.M.<br>Peak Hr (veh) |
|---------|-----|---|------------------------------|-----------------------|
| ALA-80  | WB  | Bay Bridge Toll Plaza                         | 3941                         | 941                   |
| ALA-80  | WB  | Contra Costa Co. Line to Powell St            | 1780                         | N/A                   |
|         | EB  | I 880 Viaduct to Contra Costa Co. Line        | N/A                          | 1566                  |
| ALA-80  | WB  | HOV FLYOVER                                   | N/A                          | 454                   |
| ALA-84  | WB  | I-880 to Dumbarton Bridge Toll Plaza          | 944                          | 290                   |
| ALA-92  | WB  | Hesperian Blvd to San Mateo Bridge Toll Plaza | 1056                         | 422                   |
| ALA-580 | EB  | Hacienda Dr. to N. Livermore Ave.             | N/A                          | 830                   |
|         |     | N. Livermore Ave to Greenville Rd             | 355                          | 603                   |
| ALA-680 | SB  | Route 84 to ALA/SCL Co. Line ^                | 835                          | 587                   |
| ALA-880 | SB  | Marina Blvd to Whipple Road                   | 1054                         | 1297                  |
|         |     | Whipple Road to SCL County Line               | 1016                         | 768                   |
|         | NB  | SCL County Line to Whipple Road               | 402                          | 813                   |
|         |     | Whipple Road to South of Rte 238 I/C          | 989                          | 984                   |
| ALA-880 | NB  | 16th St to SFOBB Toll Plaza                   | 288                          | N/A                   |
| CC-04   | WB  | Loveridge Road to Port Chicago Hwy            | 1238                         | **                    |
|         | EB  | Port Chicago Hwy to Railroad Ave.             | **                           | 931                   |
| CC-80   | WB  | Solano Co. Line to Route 4                    | 787                          | N/A                   |
|         |     | Route 4 to Alameda Co. Line                   | 1667                         | N/A                   |
|         | EB  | Alameda Co. Line to Route 4                   | N/A                          | 1332                  |
| CC-680  | N/B | Benicia-Martinez Bridge Toll Plaza            | N/A                          | 339                   |
| CC-680  | SB  | Marina Vista I/C to N/O North Main St         | 1375                         | 300                   |
|         | NB  | Route 242 to Marina Vista I/C                 | 228                          | 468                   |
| CC-680  | SB  | Livorna Rd. to Alcosta Blvd.                  | 801                          | 989                   |
|         | NB  | Alcosta Blvd. to Livorna Rd.                  | 855                          | 900                   |
| MRN-101 | SB  | Route 37 to Mission Avenue                    | 824                          | **                    |
|         |     | Mission Avenue to Richardson Bridge           | 410                          | **                    |
|         | NB  | Richardson Bridge to Mission Avenue           | **                           | 640                   |
|         |     | Mission Avenue to Route 37                    | **                           | 747                   |
| SCL-85  | SB  | Rte 101 (Mountain View) to Rte 280            | N/A                          | 687                   |
|         |     | Rte 280 to Almaden Expwy                      | N/A                          | 821                   |
|         |     | Almaden Expwy to Rte 101 (So. San Jose)       | N/A                          | 780                   |
|         | NB  | Rte 101 (So. San Jose) to Almaden Expwy       | 722                          | N/A                   |
|         |     | Almaden Expwy to Rte 280                      | 745                          | N/A                   |
|         |     | Rte 280 to Rte 101 (Mountain View)            | 873                          | N/A                   |
| SCL-87  | SB  | Route 101 I/C to Route 280 I/C                | N/A                          | 696                   |
|         |     | Route 280 I/C to Route 85/87 Jct              | N/A                          | 714                   |
|         | NB  | Route 85/87 Jct to Route 280 I/C              | 986                          | N/A                   |
|         |     | Route 280 I/C to Route 101 I/C                | 660                          | N/A                   |

#### **HOV LANE PEAK HOUR VOLUMES**

|         |    |  | <b>A.M.</b><br>Peak Hr (veh) | P.M.<br>Peak Hr (veh) |
|---------|----|--|------------------------------|-----------------------|
| SCL-101 | SB | San Mateo Co. Line to Ellis St           | 690                          | 1541                  |
|         |    | Ellis St to Guadalupe Pkwy               | N/A                          | 1162                  |
|         |    | Guadalupe Pkwy to 101/280/680 I/C        | N/A                          | 803                   |
|         |    | 101/280/680 I/C to Bernal Rd             | N/A                          | 573                   |
|         |    | Bernal Rd to Cochrane Rd                 | N/A                          | 866                   |
|         | NB | Cochrane Road to Bernal Road             | 834                          | N/A                   |
|         |    | Bernal Rd to 101/280/680 I/C             | 771                          | N/A                   |
|         |    | 101/280/680 I/C to Guadalupe Pkwy        | 1476                         | N/A                   |
|         |    | Guadalupe Pkwy to Ellis St               | 614                          | N/A                   |
|         |    | Ellis St to San Mateo Co. Line           | 799                          | 630                   |
| SCL-237 | WB | Rte 880/237Jct to Mathilda Ave           | 883                          | 328                   |
|         | EB | Mathilda Ave to Rte 880/237 Jct.         | N/A                          | 620                   |
| SCL-280 | SB | Magdalena Ave to Leland Ave              | N/A                          | 584                   |
|         | NB | Leland Ave to Magdalena Ave              | 437                          | N/A                   |
| SCL-680 | SB | ALA/SCL Co. Line to Route 237 ^          | N/A                          | 478                   |
| SCL-880 | SB | Alameda Co. Line to I 880/SR237 Junction | ~                            | ~                     |
|         | NB | I 880/SR237 Junction to Alameda Co. Line | ~                            | ~                     |
| SM-101  | SB | Whipple Ave to Santa Clara Co. Line      | 656                          | 482                   |
|         | NB | Santa Clara Co. Line to Whipple Ave      | 1033                         | 825                   |
| SOL-80  | WB | Route 29 to Contra Costa County Line     | N/A                          | N/A                   |
|         | EB | Carquinez Bridge Toll Plaza              | N/A                          | 849                   |
| SOL-80  | WB | Airbase Parkway to Red Top Rd            | 347                          | 235                   |
|         | EB | Red Top Rd to Airbase Parkway            | 191                          | 495                   |
| SON-101 | SB | Windsor River Road to Route 12           | 108                          | 150                   |
|         |    | Route 12 to Wilfred Avenue               | 314                          | 717                   |
|         | NB | Wilfred Avenue to Route 12               | 308                          | 571                   |
|         |    | Route 12 to Windsor River Road           | 244                          | 450                   |

#### Notes:

N/A: Due to Resource shortfall 2010 data is not available.

<sup>\*\*</sup> HOVL not in operation during this Peak Period.

<sup>~</sup> Data Collection location not available within these limits

<sup>^</sup> Volumes prior to the HOV Lane conversion to Express Lane

#### **PEAK HOUR HOV & non-HOV LANE COMPARISONS**

|         |     |   |          | % of all   | Il vehicles % of all Persons |            |                 | % of all Persons              |                                   |
|---------|-----|---|----------|------------|------------------------------|------------|-----------------|-------------------------------|-----------------------------------|
|         |     |   | •        | in HOVL    | in Non-<br>HOVL              | in HOVL    | in Non-<br>HOVL | Number of<br>Non-HOV<br>Lanes | in Non-<br>HOVL (Avg<br>per Lane) |
| ALA-80  | WB  | Bay Bridge Toll Plaza   | AM       | 42%        | 58%                          | 68%        | 32%             | 18                            | 2%                                |
| ALA-80  | WB  | Contra Costa Co. Line to Powell Street                                  | PM<br>AM | 12%<br>21% | 88%<br>79%                   | 30%<br>41% | 70%<br>59%      | 18<br>4                       | 4%<br>15%                         |
| ALA-00  | VVD | Contra Costa Co. Line to Fowell Street                                  | PM       | N/A        | N/A                          | N/A        | N/A             | 4                             | N/A                               |
|         | EB  | I 880 Viaduct to Contra Costa Co. Line                                  | AM       | N/A        | N/A                          | N/A        | N/A             | 4                             | N/A                               |
| 41.4.04 | MD  | LOSS CONTRACTOR   | PM       | 19%        | 81%                          | 37%        | 63%             | 4                             | 16%                               |
| ALA-84  | WB  | I-880 to Dumbarton Bridge Toll Plaza                                    | AM<br>PM | 21%<br>N/A | 79%<br>N/A                   | 38%<br>N/A | 62%<br>N/A      | 3<br>3                        | 21%<br>N/A                        |
| ALA-92  | WB  | Hesperian Blvd to San Mateo Bridge Toll Plaza                           | AM       | 23%        | 77%                          | 40%        | 60%             | 3                             | 20%                               |
| ALA-580 | EB  | Hacienda Dr. to N. Livermore Ave.                                       | PM<br>AM | N/A<br>N/A | N/A<br>N/A                   | N/A        | N/A<br>N/A      | 3                             | N/A                               |
| ALA-380 | EB  | Hacienda Dr. to N. Livermore Ave.                                       | PM       | 15%        | N/A<br>88%                   | N/A<br>27% | 73%             | 3                             | N/A<br>26%                        |
|         |     | N. Livermore Ave to Greenville Rd                                       | AM       | 16%        | 87%                          | 25%        | 75%             | 3                             | 25%                               |
|         |     |   | PM       | 12%        | 85%                          | 22%        | 78%             | 3                             | 24%                               |
| ALA-680 | SB  | Route 84 to ALA/SCL Co. Line  | AM       | 13%        | 87%                          | 22%        | 78%             | 3                             | 26%                               |
| ALA-880 | SB  | Marina Blyd to Whimpla Dd   | PM<br>AM | 13%<br>21% | 87%<br>79%                   | 22%<br>42% | 78%<br>58%      | 3                             | 26%<br>19%                        |
| ALA-880 | 28  | Marina Blvd to Whipple Rd   | PM       | 21%        | 79%<br>80%                   | 32%        | 58%<br>68%      | 3                             | 23%                               |
|         |     | Whipple Rd to Santa Clara Co. Line                                      | AM       | 19%        | 81%                          | 33%        | 67%             | 3                             | 22%                               |
|         |     |   | РМ       | 16%        | 84%                          | 26%        | 74%             | 3                             | 25%                               |
|         | NB  | Santa Clara Co. Line to Whipple Rd                                      | AM       | 7%         | 93%                          | 15%        | 85%             | 3                             | 28%                               |
|         |     | Whitehala Delta Cauth of Dta 220 I/O                                    | PM<br>AM | 13%        | 87%                          | 25%        | 75%             | 3                             | 25%                               |
|         |     | Whipple Rd to South of Rte 238 I/C                                      | PM       | 18%<br>18% | 82%<br>82%                   | 35%<br>32% | 65%<br>68%      | 3<br>3                        | 22%<br>23%                        |
| ALA-880 | NB  | 16th Street to SFOBB  | AM       | 19%        | 81%                          | 36%        | 64%             | 2                             | 32%                               |
|         |     |   | РМ       | N/A        | N/A                          | N/A        | N/A             | 2                             | N/A                               |
| CC-04   | WB  | Loveridge Road to Port Chicago Hwy                                      | AM       | 23%        | 77%                          | 36%        | 64%             | 3                             | 21%                               |
|         | EB  | Port Chicago to Railroad Avenue   | PM       | 12%        | 88%                          | 19%        | 81%             | 3                             | 27%                               |
| CC-80   | WB  | Solano Co. Line to Route 4  | AM<br>PM | 25%<br>N/A | 75%<br>N/A                   | 46%<br>N/A | 54%<br>N/A      | 3<br>3                        | 18%<br>N/A                        |
|         |     | Route 4 to Alameda Co. Line   | AM       | 24%        | 76%                          | 57%        | 43%             | 3                             | 14%                               |
|         |     |   | РМ       | N/A        | N/A                          | N/A        | N/A             | 3                             | N/A                               |
|         | EB  | Alameda Co. Line to Route 4   | AM       | N/A        | N/A                          | N/A        | N/A             | 3                             | N/A                               |
| CC-680  | NID | Ponisio Mortinoz Pridgo Toll Plazo ED                                   | PM<br>AM | 22%<br>4%  | 78%                          | 46%        | 54%             | 3<br>11                       | 18%                               |
| CC-660  | NB  | Benicia-Martinez Bridge Toll Plaza EB                                   | PM       | 4%<br>6%   | 96%<br>94%                   | 9%<br>14%  | 91%<br>86%      | 11                            | 8%<br>8%                          |
| CC-680  | SB  | Marina Vista I/C to N/O North Main St                                   | AM       | N/A        | N/A                          | N/A        | N/A             | 5                             | N/A                               |
|         |     |   | РМ       | 3%         | 97%                          | 6%         | 94%             | 5                             | 19%                               |
|         | NB  | Route 242 to Marina Vista I/C   | AM       | 8%         | 92%                          | 21%        | 79%             | 4                             | 20%                               |
| 00.000  | 0.0 | Liverna Delta Alexada Divel   | PM<br>AM | 11%        | 89%                          | 19%        | 81%             | 4                             | 20%                               |
| CC-680  | SB  | Livorna Rd to Alcosta Blvd  | PM       | 15%<br>16% | 85%<br>84%                   | 27%<br>29% | 73%<br>71%      | 3<br>3                        | 24%<br>24%                        |
|         | NB  | Alcosta Blvd to Livorna Rd  | AM       | 16%        | 84%                          | 29%        | 71%             | 3                             | 24%                               |
|         |     |   | PM       | 16%        | 84%                          | 25%        | 75%             | 3                             | 25%                               |
| MRN-101 | SB  | Route 37 to Mission Avenue  | AM       | 15%        | 85%                          | 28%        | 72%             | 3                             | 24%                               |
|         | ND  | Mission Avenue to Richardson Bridge Richardson Bridge to Mission Avenue | AM<br>PM | 8%         | 92%                          | 19%        | 81%             | 3                             | 27%                               |
|         | NB  | Mission Avenue to Route 37  | PM       | 12%<br>12% | 88%<br>88%                   | 27%<br>25% | 73%<br>75%      | 3                             | 24%<br>25%                        |
| SCL-85  | SB  | Rte 101 (Mtn View) to Rte 280   | AM       | N/A        | N/A                          | N/A        | N/A             | 2                             | N/A                               |
| -       |     |   | PM       | 15%        | 85%                          | 25%        | 75%             | 2                             | 37%                               |
|         |     | Rte 280 to Almaden Expwy  | AM       | N/A        | N/A                          | N/A        | N/A             | 2                             | N/A                               |
|         |     | Almaden Expwy to Rte 101 (So. San Jose)                                 | PM<br>AM | 17%<br>N/A | 83%<br>N/A                   | 27%<br>N/A | 73%<br>N/A      | 2 2                           | 37%<br>N/A                        |
|         |     | Annaden Expwy to Inte 101 (30. 3an 3056)                                | PM       | 17%        | 83%                          | 28%        | 72%             | 2                             | 36%                               |
|         | NB  | Rte 101 (So. San Jose) to Almaden Expwy                                 | AM       | 17%        | 83%                          | 28%        | 72%             | 2                             | 36%                               |
|         |     |   | PM       | N/A        | N/A                          | N/A        | N/A             | 2                             | N/A                               |
|         |     | Almaden Expwy to Rte 280  | AM       | 15%        | 85%<br>N/A                   | 27%        | 73%             | 2                             | 36%                               |
|         |     | Rte 280 to Rte 101 (Mtn View)   | PM<br>AM | N/A<br>19% | N/A<br>81%                   | N/A<br>34% | N/A<br>66%      | 2                             | N/A<br>33%                        |
|         |     | THE ZOU TO THE TOT (WILL VIEW)  | PM       | N/A        | N/A                          | N/A        | N/A             | 2                             | N/A                               |

#### PEAK HOUR HOV & non-HOV LANE COMPARISONS

|         |     |                                     |          | % of all   | % of all vehicles % of all I |            |                 | l Persons                     |                                   |  |
|---------|-----|-------------------------------------|----------|------------|------------------------------|------------|-----------------|-------------------------------|-----------------------------------|--|
|         |     |                                     |          | in HOVL    | in Non-<br>HOVL              | in HOVL    | in Non-<br>HOVL | Number of<br>Non-HOV<br>Lanes | in Non-<br>HOVL (Avg<br>per Lane) |  |
| SCL-87  | SB  | Route 101 I/C to Route 280 I/C      | AM<br>PM | N/A<br>15% | N/A<br>85%                   | N/A<br>27% | N/A<br>74%      | 2<br>2                        | N/A<br>37%                        |  |
|         |     | Route 280 I/C to Route 85/87 Jct    | AM<br>PM | N/A<br>17% | N/A<br>83%                   | N/A<br>28% | N/A<br>72%      | 2 2                           | N/A<br>36%                        |  |
|         | NB  | Route 85/87 Jct to Route 280 I/C    | AM<br>PM | 21%<br>N/A | 79%<br>N/A                   | 34%<br>N/A | 66%<br>N/A      | 2 2                           | 33%<br>N/A                        |  |
|         |     | Route 280 I/C to Route 101 I/C      | AM<br>PM | 30%<br>N/A | 70%<br>N/A                   | 47%<br>N/A | 53%<br>N/A      | 2 2                           | 26%<br>N/A                        |  |
| SCL-101 | SB  | San Mateo Co. Line to Ellis St      | AM<br>PM | 11%<br>25% | 89%<br>75%                   | 20%<br>38% | 80%<br>62%      | 3 3                           | 27%<br>21%                        |  |
|         |     | Ellis St to Guadalupe Pkwy          | AM<br>PM | N/A<br>21% | N/A<br>79%                   | N/A<br>35% | N/A<br>65%      | 3 3                           | N/A<br>22%                        |  |
|         |     | Guadalupe Pkwy to 101/280/680 I/C   | AM<br>PM | N/A        | N/A                          | N/A        | N/A             | 3                             | N/A                               |  |
|         |     | 101/280/680 I/C to Bernal Rd        | AM<br>PM | 13%<br>N/A | 87%<br>N/A                   | 20%<br>N/A | 80%<br>N/A      | 3                             | 27%<br>N/A                        |  |
|         |     | Bernal Rd to Cochrane Rd            | AM       | 11%<br>N/A | 89%<br>N/A                   | 19%<br>N/A | 81%<br>N/A      | 3                             | 27%<br>N/A                        |  |
|         | NB  | Cochrane Rd to Bernal Road          | AM       | 18%<br>13% | 82%<br>87%                   | 29%<br>22% | 71%<br>78%      | 3                             | 24%<br>26%                        |  |
|         |     | Bernal Rd to 101/280/680 I/C        | PM<br>AM | N/A<br>14% | N/A<br>86%                   | N/A<br>25% | N/A<br>75%      | 3                             | N/A<br>25%                        |  |
|         |     | 101/280/680 I/C to Guadalupe Pkwy   | PM<br>AM | N/A<br>21% | N/A<br>79%                   | N/A<br>33% | N/A<br>67%      | 3                             | N/A<br>22%                        |  |
|         |     | Guadalupe Pkwy to Ellis St          | PM<br>AM | N/A<br>9%  | N/A<br>91%                   | N/A<br>17% | N/A<br>83%      | 3                             | N/A<br>28%                        |  |
|         |     | Ellis St to San Mateo Co. Line      | PM<br>AM | N/A<br>13% | N/A<br>87%                   | N/A<br>22% | N/A<br>78%      | 3                             | N/A<br>26%                        |  |
| SCL-237 | WB  | 880/237 Jct to Mathilda Ave         | PM<br>AM | 9%<br>17%  | 91%<br>83%                   | 18%<br>30% | 82%<br>70%      | 3                             | 27%<br>35%                        |  |
| OOL 201 | EB  | Mathilda Ave to Rte 880/237 Jct     | PM<br>AM | 8%<br>N/A  | 92%<br>N/A                   | 14%<br>N/A | 86%<br>N/A      | 2 2                           | 43%<br>N/A                        |  |
| 001 000 |     |                                     | PM       | 14%        | 86%                          | 23%        | 77%             | 2                             | 38%                               |  |
| SCL-280 | SB  | Magdalena Ave to Leland Ave         | AM<br>PM | N/A<br>11% | N/A<br>89%                   | N/A<br>18% | N/A<br>82%      | 3<br>3                        | N/A<br>27%                        |  |
|         | NB  | Leland Ave to Magdalena Ave         | AM<br>PM | 7%<br>N/A  | 93%<br>N/A                   | 13%<br>N/A | 87%<br>N/A      | 3<br>3                        | 29%<br>N/A                        |  |
| SCL-680 | SB  | SCL/ALA Co. Line to Route 237       | AM<br>PM | 7%<br>9%   | 93%<br>91%                   | 13%<br>15% | 87%<br>85%      | 3<br>3                        | 29%<br>28%                        |  |
| SCL-880 | SB  | Alameda Co. Line to I 880/SR237 Jct | AM<br>PM | ~ ~        | ~ ~                          | ~ ~        | ~ ~             | 3<br>3                        | ~ ~                               |  |
|         | NB  | I 880/SR237 Jct to Alameda Co. Line | AM<br>PM | ~ ~        | ~                            | ~ ~        | ~ ~             | 3 3                           | ~                                 |  |
| SM-101  | SB  | Whipple Ave to Santa Clara Co. Line | AM<br>PM | 9%<br>7%   | 91%<br>93%                   | 22%<br>13% | 78%<br>87%      | 3                             | 26%<br>29%                        |  |
|         | NB  | Santa Clara Co. Line to Whipple Ave | AM<br>PM | 18%        | 82%                          | 30%        | 70%             | 3                             | 23%                               |  |
| SOL-80  | WB  | Route 29 to Contra Costa Co. Line   | AM       | 18%<br>N/A | 82%<br>N/A                   | 28%<br>N/A | 72%<br>N/A      | 3                             | 24%<br>N/A                        |  |
|         | EB  | Carquinez Bridge Toll Plaza         | AM       | N/A<br>N/A | N/A<br>N/A                   | N/A<br>N/A | N/A<br>N/A      | 3<br>11                       | N/A<br>N/A                        |  |
| SOL-80  | WB  | East of Airbase Pkwy to Red Top Rd  | PM<br>AM | 18%<br>7%  | 82%<br>93%                   | 36%<br>12% | 64%<br>88%      | 11<br>4                       | 6%<br>22%                         |  |
|         | EB  | Red Top Rd to East of Airbase Pkwy  | PM<br>AM | 7%<br>5%   | 93%<br>95%                   | 17%<br>13% | 83%<br>87%      | 4                             | 21%<br>22%                        |  |
| SON-101 | SB  | Windsor River Rd to Route12         | PM<br>AM | 12%<br>5%  | 88%<br>95%                   | 21%<br>10% | 79%<br>90%      | 4<br>2                        | 20%<br>45%                        |  |
| -       |     | Route 12 to Wilfred Avenue          | PM<br>AM | 7%<br>7%   | 93%<br>93%                   | 12%<br>22% | 88%<br>78%      | 2                             | 44%<br>39%                        |  |
|         | NB  | Wilfred Avenue to Route 12          | PM<br>AM | 14%<br>8%  | 86%<br>92%                   | 25%<br>17% | 75%<br>83%      | 2 2                           | cco<br>42%                        |  |
|         | 140 |                                     | PM<br>AM | 13%<br>7%  | 87%                          | 25%        | 75%             | 2                             | 37%                               |  |
|         |     | Route 12 to Windsor River Rd        | PM       | 7%<br>11%  | 93%<br>89%                   | 13%<br>19% | 87%<br>81%      | 2<br>2                        | 43%<br>40%                        |  |

<sup>\*</sup> Total in all 4 HOVL's combined.

N/A: Due to Resource shortfall 2010 data is not available.

<sup>\*\*</sup> Total in all 18 Non HOVL's combined.

 $<sup>\, {\</sup>color{blue} \sim} \,$  Data collection location not avaliable within these limits.

#### **HOV LANE PEAK PERIOD VIOLATION RATE SUMMARY**

|   |    |   | A.M.  | P.M.  |
|---|----|---|-------|-------|
| ALA-80  | WB | Bay Bridge Toll Plaza                         | 13.2% | 13.2% |
| ALA-80  | WB | Contra Costa Co. Line to Powell St            | 8.4%  | N/A   |
|   | EB | I 880 Viaduct to Contra Costa Co. Line        | N/A   | 14.0% |
| ALA-80  | WB | HOV FLYOVER RAMP                              | N/A   | 19.5% |
| ALA-84  | WB | I-880 to Dumbarton Bridge Toll Plaza          | 0.4%  | 0.8%  |
| ALA-92  | WB | Hesperian Blvd to San Mateo Bridge Toll Plaza | 0.3%  | 0.9%  |
| ALA-580   | EB | Hacienda Dr. to N. Livermore Ave.             | N/A   | 1.2%  |
|   |    | N. Livermore Ave to Greenville Road           | 3.4%  | 3.0%  |
| ALA-680   | SB | Route 84 to SCL/ALA Co. Line                  | 0.6%  | 3.9%  |
| ALA-880   | SB | Marina Blvd to Whipple Road                   | 5.8%  | 2.8%  |
|   |    | Whipple Road to Santa Clara Co. Line          | 1.2%  | 3.7%  |
|   | NB | Santa Clara Co. Line to Whipple Road          | 2.9%  | 6.4%  |
|   |    | Whipple Road to South of Rte 238 I/C          | 1.7%  | 1.6%  |
| ALA-880   | NB | 16th St to SFOBB Toll Plaza                   | 12.6% | N/A   |
| ALA-80 ALA-84 ALA-82 ALA-580 ALA-680 ALA-880 CC-04 CC-680 CC-680 CC-680 ALA-850 CC-680 CC-680 | WB | Loveridge Road to Port Chicago Hwy.           | 2.6%  | **    |
|   | EB | Port Chicago Hwy to Railroad Ave              | **    | 2.1%  |
| CC-80   | WB | Solano Co. Line to Route 4                    | 7.1%  | N/A   |
|   |    | Route 4 to Alameda Co. Line                   | 6.9%  | N/A   |
|   | EB | Alameda Co. Line to Rte 4                     | N/A   | 10.0% |
| CC-680  | NB | Benicia-Martinez Bridge Toll Plaza            | N/A   | 59.4% |
| CC-680  | SB | Marina Vista to N/O North Main St.            | 1.2%  | 4.9%  |
|   | NB | Route 242 to Marina Vista I/C                 | 10.7% | 5.4%  |
| CC-680  | SB | Livorna Rd. to Alcosta Blvd.                  | 3.7%  | 1.4%  |
|   | NB | Alcosta Blvd. to Livorna Rd.                  | 1.7%  | 2.0%  |
| MRN-101   | SB | Route 37 to Mission Avenue                    | 1.3%  | **    |
|   |    | Mission Avenue to Richardson Bridge           | 2.0%  | **    |
|   | NB | Richardson Bridge to Mission Avenue           | **    | 1.6%  |
|   |    | Mission Avenue to Route 37                    | **    | 1.2%  |
| SCL-85  | SB | Rte 101 (Mountain View) to Rte 280            | N/A   | 2.3%  |
|   |    | Rte 280 to Almaden Expwy                      | N/A   | 2.4%  |
|   |    | Almaden Expwy to Rte 101 (So. San Jose)       | N/A   | 1.5%  |
|   | NB | Rte 101 (So. San Jose) to Almaden Expwy       | 0.4%  | N/A   |
|   |    | Almaden Expwy to Rte 280                      | 2.6%  | N/A   |
|   |    | Rte 280 to Rte 101 (Mountain View)            | 1.6%  | N/A   |
| SCL-87  | SB | Route 101 I/C to Route 280                    | N/A   | 3.9%  |
|   |    | Route 280 to Route 85/87 Jct                  | N/A   | 7.8%  |
|   | NB | Route 85/87 Jct to Route 280                  | 1.9%  | N/A   |
|   |    | Route 280 to Route 101 I/C                    | 0.4%  | N/A   |
| SCL-101   | SB | San Mateo Co. Line to Ellis St                | 1.5%  | 3.1%  |
| -   |    | Ellis St to Guadalupe Pkwy                    | N/A   | 0.6%  |
|   |    | Guadalupe Pkwy to 101/280/680 I/C             | N/A   | 0.6%  |
|   |    | 101/280/680 I/C to Bernal Rd                  | N/A   | 4.7%  |
|   |    | Bernal Rd to Cochrane Road                    | N/A   | 0.2%  |

#### **HOV LANE PEAK PERIOD VIOLATION RATE SUMMARY**

|         |    |                                     | A.M. | P.M. |
|---------|----|-------------------------------------|------|------|
|         | NB | Cochrane Rd to Bernal Rd            | 1.4% | N/A  |
|         |    | Bernal Rd to 101/280/680 I/C        | 0.7% | N/A  |
|         |    | 101/280/680 I/C to Guadalupe Pkwy   | 2.0% | N/A  |
|         |    | Guadalupe Pkwy to Ellis St          | 0.9% | N/A  |
|         |    | Ellis St to San Mateo Co. Line      | 0.5% | 0.6% |
| SCL-237 | WB | 880/237 Jct to Mathilda Ave         | 1.3% | 0.0% |
|         | EB | Mathilda Ave to Rte 880/237 Jct.    | N/A  | 2.0% |
| SCL-280 | SB | Magdalena Ave to Leland Ave         | N/A  | 0.0% |
|         | NB | Leland Ave to Magdalena Ave         | 0.7% | N/A  |
| SCL-680 | SB | SCL/ALA Co. Line to Route 237       | N/A  | 3.4% |
| SCL-880 | SB | Alameda Co. Line to I 880/SR237 Jct | ~    | ~    |
|         | NB | I 880/SR237 Jct to Alameda Co. Line | ~    | ~    |
| SM-101  | SB | Whipple Ave to Santa Clara Co. Line | 5.7% | 1.3% |
|         | NB | Santa Clara Co. Line to Whipple Ave | 0.2% | 0.2% |
| SOL-80  | WB | Route 29 to Contra Costa Co. Line   | N/A  | N/A  |
|         | EB | Carquinez Bridge Toll Plaza         | N/A  | 6.5% |
| SOL-80  | WB | Airbase Pkwy to Red Top Rd          | 2.9% | 3.2% |
|         | EB | Red Top Rd to Airbase Pkwy          | 1.5% | 1.1% |
| SON-101 | SB | Windsor River Road to Route 12      | 2.0% | 1.4% |
|         |    | Route 12 to Wilfred Avenue          | 4.2% | 0.9% |
|         | NB | Wilfred Avenue to Route 12          | 4.3% | 1.6% |
|         |    | Route 12 to Windsor River Road      | 1.2% | 1.7% |

N/A: Due to Resource shortfall 2010 data is not available.

<sup>~</sup> Data collection location not available within these limits. \*\* HOV not in operation during this Peak Period

#### HOV LANE PEAK HOUR TIME SAVINGS AND AVERAGE SPEEDS

|         |          |   |            | Travel Time<br>(minutes)<br>Non-HOVL | Travel Time<br>(minutes)<br>HOVL | HOVL<br>Time Saving<br>(minutes) | Avg. Speed<br>(mph)<br>Non-HOVL | Avg. Speed<br>(mph)<br>HOVL |
|---------|----------|---|------------|--------------------------------------|----------------------------------|----------------------------------|---------------------------------|-----------------------------|
| ALA-80  | WB       | Bay Bridge Toll Plaza   | AM<br>PM   | 29<br>8                              | 1                                | 28<br>7                          | 2 8                             | 65<br>65                    |
| ALA-80  | WB       | Contra Costa Co. Line to Powell St  | AM<br>PM   | 12<br>4                              | 6 4                              | 6                                | 21<br>63                        | 42<br>65                    |
|         | EB       | I 880 Viaduct to Contra Costa Co. Line                                      | AM<br>PM   | 5<br>15                              | 5<br>8                           | 0 7                              | 65<br>23                        | 65<br>44                    |
| ALA-80  | WB       | HOV FLYOVER RAMP  | AM<br>PM   | 5<br>1                               | 1                                | 4<br>0                           | 11<br>55                        | 55<br>55                    |
| ALA-84  | WB       | I-880 to Dumbarton Bridge Toll Plaza  | AM<br>PM   | 4 3                                  | 2<br>2                           | 2<br>1                           | 38<br>54                        | 65<br>65                    |
| ALA-92  | WB       | Hesperian Blvd to San Mateo Bridge Toll Plaza                               | AM<br>PM   | 3<br>3                               | 2<br>2                           | 1<br>1                           | 54<br>54                        | 65<br>65                    |
| ALA-580 | EB       | Hacienda Dr. to Greenville Rd   | AM<br>PM   | 10<br>14                             | 10<br>10                         | 0<br>4                           | 65<br>47                        | 65<br>65                    |
| ALA-680 | SB       | Route 84 to ALA/SCL Co. Line  | AM<br>PM   | 16<br>12                             | 12<br>12                         | 4<br>0                           | 49<br>65                        | 65<br>65                    |
| ALA-880 | SB       | Marina Blvd. to Whipple Road  | AM<br>PM   | 24<br>14                             | 13<br>13                         | 11<br>1                          | 22<br>39                        | 41<br>41                    |
|         |          | Whipple Road to Santa Clara Co. Line  | AM<br>PM   | 27<br>15                             | 12<br>12                         | 15<br>3                          | 30<br>53                        | 65<br>65                    |
|         | NB       | Santa Clara Co. Line to Whipple Road  | AM<br>PM   | 18<br>28                             | 12<br>12                         | 6<br>16                          | 45<br>29                        | 65<br>65                    |
|         |          | Whipple Road to South of Rte 238 I/C  | AM<br>PM   | 12<br>13                             | 5<br>5                           | 7<br>8                           | 27<br>25                        | 65<br>65                    |
| ALA-880 | NB       | 16th St to SFOBB Toll Plaza   | AM<br>PM   | 15<br>3                              | 2<br>2                           | 13<br>1                          | 7<br>36                         | 50<br>50                    |
| CC-04   | WB<br>EB | Loveridge Rd. to Port Chicago Hwy Port Chicago Hwy to West of Railroad Ave. | AM<br>PM   | 13<br>21                             | 7                                | 6<br>14                          | 34<br>22                        | 65<br>65                    |
| CC-80   | WB       | Solano Co. Line to Route 4  | AM<br>PM   | 4                                    | 4                                | 0                                | 65<br>65                        | 65<br>65                    |
|         |          | Route 4 to Alameda Co. Line   | AM<br>PM   | 24<br>9                              | 12<br>9                          | 12<br>0                          | 24<br>65                        | 48<br>65                    |
|         | EB       | Alameda Co. Line to Rte 4   | AM<br>PM   | 9<br>21                              | 9<br>13                          | 0                                | 65<br>27                        | 65<br>44                    |
| CC-680  | NB       | N/O Marina Vista I/C to Benicia Bridge Toll Plaz                            | a AM<br>PM | 4<br>5                               | 1<br>1                           | 3<br>4                           | 8<br>7                          | 65<br>65                    |
| CC-680  | SB       | Marina Vista I/C to N/O North Main St                                       | AM<br>PM   | 14<br>7                              | 7<br>7                           | 7<br>0                           | 33<br>63                        | 65<br>65                    |
|         | NB       | Route 242 to Marina Vista   | AM<br>PM   | 4<br>6                               | 4 4                              | 0<br>2                           | 64<br>48                        | 65<br>65                    |
| CC-680  | SB       | Livorna Rd to Alcosta Blvd  | AM<br>PM   | 14<br>12                             | 10<br>10                         | 4<br>2                           | 48<br>53                        | 65<br>65                    |
|         | NB       | Alcosta Blvd to Livorna Rd  | AM<br>PM   | 21<br>22                             | 16<br>16                         | 5<br>6                           | 49<br>46                        | 65<br>65                    |
| MRN-101 | SB       | Rte 37 to Mission Ave. Mission Ave. to Richardson Bridge                    | AM<br>AM   | 14<br>8                              | 12<br>7                          | 2<br>1                           | 33<br>49                        | 38<br>55                    |
|         | NB       | Richardson Bridge to Mission Ave.<br>Mission Ave. to Rte 37                 | PM<br>PM   | 12<br>10                             | 8<br>7                           | 4<br>3                           | 37<br>43                        | 55<br>61                    |
| SCL-85  | SB       | Rte 101 (Mtn View) to Rte 280   | AM<br>PM   | 6<br>14                              | 5<br>5                           | 1<br>9                           | 57<br>25                        | 65<br>65                    |
|         |          | Rte 280 to Almaden Expwy  | AM<br>PM   | 12<br>26                             | 11<br>13                         | 1<br>13                          | 60<br>27                        | 65<br>55                    |
|         |          | Almaden Expwy to Rte 101 (So. San Jose)                                     | AM<br>PM   | 6<br>6                               | 6<br>6                           | 0<br>0                           | 65<br>62                        | 65<br>65                    |
|         | NB       | Rte 101 (So. San Jose) to Almaden Expwy                                     | AM<br>PM   | 15<br>6                              | 6<br>6                           | 9<br>0                           | 25<br>60                        | 65<br>65                    |
|         |          | Almaden Expwy to Rte 280  | AM<br>PM   | 22<br>20                             | 11<br>12                         | 11<br>8                          | 34<br>38                        | 65<br>65                    |
|         |          | Rte 280 to Rte 101 (Mtn View)   | AM<br>PM   | 21<br>6                              | 5<br>5                           | 16<br>1                          | 16<br>54                        | 65<br>65                    |

#### HOV LANE PEAK HOUR TIME SAVINGS AND AVERAGE SPEEDS

|          |     |                                       |          | Travel Time<br>(minutes)<br>Non-HOVL | Travel Time<br>(minutes)<br>HOVL | HOVL<br>Time Saving<br>(minutes) | Avg. Speed<br>(mph)<br>Non-HOVL | Avg. Spe<br>(mph)<br>HOVL |
|----------|-----|---------------------------------------|----------|--------------------------------------|----------------------------------|----------------------------------|---------------------------------|---------------------------|
| SCL-87   | SB  | Route 101 I/C to Route 280 I/C        | AM<br>PM | 5<br>15                              | 5                                | 0                                | 65<br>19                        | 65<br>55                  |
|          |     | D. 1. 000 HO 1. D. 1. 05/07 Lt        | AM       | 4                                    | 4                                | 0                                | 65                              | 65                        |
|          |     | Route 280 I/C to Route 85/87 Jct      | PM       | 15                                   | 4                                | 11                               | 19                              | 65                        |
|          | NB  | Route 85/87 Jct to Route 280 I/C      | AM       | 16                                   | 6                                | 10                               | 24                              | 65                        |
|          | IND | Noute 65/67 Set to Noute 200 I/C      | PM       | 6                                    | 6                                | 0                                | 65                              | 65                        |
|          |     | Route 280 I/C to Route 101 I/C        | AM       | 17                                   | 3                                | 14                               | 12                              | 65                        |
|          |     | Noute 200 I/O to Noute 101 I/O        | PM       | 5                                    | 3                                | 2                                | 41                              | 65                        |
| SCL-101  | SB  | San Mateo Co. Line to Ellis St        | AM       | 5                                    | 5                                | 0                                | 60                              | 65                        |
|          |     |                                       | PM       | 9                                    | 7                                | 2                                | 35                              | 44                        |
|          |     | Ellis St to Guadalupe Pkwy            | AM       | 7                                    | 6                                | 1                                | 61                              | 65                        |
|          |     |                                       | PM       | 21                                   | 6                                | 15                               | 20                              | 65                        |
|          |     | Guadalupe Pkwy to 101/280/680 I/C     | AM       | 5                                    | 5                                | 0                                | 65                              | 65                        |
|          |     |                                       | PM       | 17                                   | 8                                | 9                                | 21                              | 44                        |
|          |     | 101/280/680 I/C to Bernal Rd          | AM       | 7                                    | 7                                | 0                                | 65                              | 65                        |
|          |     |                                       | PM       | 9                                    | 7                                | 2                                | 50                              | 65                        |
|          |     | Bernal Rd to Cochrane Road            | AM       | 9                                    | 8                                | 1                                | 61                              | 65                        |
|          |     |                                       | PM       | 9                                    | 8                                | 1                                | 60                              | 65                        |
|          | NB  | Cochrane Road to Bernal Road          | AM       | 9                                    | 9                                | 0                                | 64                              | 65                        |
|          |     |                                       | PM       | 9                                    | 9                                | 0                                | 65                              | 65                        |
|          |     | Bernal Rd to 101/280/680 I/C          | AM       | 16                                   | 8                                | 8                                | 31                              | 65                        |
|          |     |                                       | PM       | 8                                    | 8                                | 0                                | 65                              | 65                        |
|          |     | 101/280/680 I/C to Guadalupe Pkwy     | AM       | 8                                    | 6                                | 2                                | 40                              | 54                        |
|          |     |                                       | PM       | 5                                    | 5                                | 0                                | 65                              | 65                        |
|          |     | Guadalupe Pkwy to Ellis Street        | AM       | 10                                   | 7                                | 3                                | 46                              | 65                        |
|          |     |                                       | PM       | 11                                   | 7                                | 4                                | 39                              | 65                        |
|          |     | Ellis to San Mateo Co. Line           | AM       | 15                                   | 7                                | 8                                | 20                              | 41                        |
|          |     |                                       | PM       | 11                                   | 9                                | 2                                | 29                              | 33                        |
| SCL-237  | WB  | McCarthy Blvd to Mathilda Ave         | AM       | 24                                   | 6                                | 18                               | 16                              | 65                        |
|          |     |                                       | PM       | 9                                    | 6                                | 3                                | 40                              | 65                        |
|          | EB  | Mathilda Ave to Rte 880/237 Jct.      | AM<br>PM | 22                                   | 6<br>6                           | 3<br>16                          | 46<br>17                        | 65<br>65                  |
|          |     |                                       | AM       | 10                                   | 10                               | 0                                | 63                              | 65<br>65                  |
| SCL-280  | SB  | Magdalena Ave to Leland Ave           | PM       | 13                                   | 10                               | 3                                | 48                              | 65                        |
|          | ND  | Laland Aria to Mandalana Aria         | AM       | 22                                   | 10                               | 12                               | 30                              | 65                        |
|          | NB  | Leland Ave to Magdalena Ave           | PM       | 12                                   | 10                               | 2                                | 56                              | 65                        |
| SCL-680  | SB  | ALA/SCL Co. Line to Rte 237           | AM       | 3                                    | 2                                | 1                                | 47                              | 65                        |
| 3CL-000  | SD  | ALA/SCL Co. Line to Rte 23/           | PM       | 2                                    | 2                                | 0                                | 65                              | 65                        |
| SCL-880  | SB  | Alameda Co. Line to I-880/SR 237 Jct  | AM       | 1                                    | 1                                | 0                                | 54                              | 65                        |
| 3CL-00U  | SD  | Alameda Co. Line to 1-660/SR 237 JCt  | PM       | 1                                    | 1                                | 0                                | 65                              | 65                        |
|          | NB  | I-880/SR 237 Jct to Alameda Co. Line  | AM       | 2                                    | 2                                | 0                                | 60                              | 65                        |
|          | IND | 1-000/31\ 237 3ct to Alameda Co. Line | PM       | 5                                    | 2                                | 3                                | 21                              | 65                        |
| SM-101   | SB  | Whipple Ave to Santa Clara Co. Line   | AM       | 17                                   | 6                                | 11                               | 24                              | 65                        |
| JIII-101 | OD  | Whippie Ave to Garita Glara Go. Eine  | PM       | 18                                   | 6                                | 12                               | 23                              | 65                        |
|          | NB  | Santa Clara Co. Line to Whipple Ave   | AM       | 8                                    | 6                                | 2                                | 50                              | 65                        |
|          | 110 | Carta Clara Co. Ente to Whippie 700   | PM       | 9                                    | 6                                | 3                                | 46                              | 65                        |
| SOL-80   | WB  | Route 29 to Contra Costa Co. Line     | AM       | 1                                    | 1                                | 0                                | 65                              | 65                        |
| 30L-80   |     |                                       | PM       | 1                                    | 1                                | 0                                | 65                              | 65                        |
|          | EB  | Carquinez Bridge Toll Plaza           | AM       | 1                                    | 1                                | 0                                | 65                              | 65                        |
|          |     | 3                                     | PM       | 1                                    | 1                                | 0                                | 65                              | 65                        |
| SOL-80   | WB  | Airbase Pkwy. to Red Top Rd.          | AM       | 8                                    | 8                                | 0                                | 65                              | 65                        |
|          |     | ·                                     | PM       | 8                                    | 8                                | 0                                | 65                              | 65                        |
|          | EB  | Red Top Rd. to Airbase Pkwy.          | AM       | 8                                    | 8                                | 0                                | 65                              | 65                        |
|          |     | <u> </u>                              | PM       | 8                                    | 8                                | 0                                | 65                              | 65                        |
| SON-101  | SB  | Windsor River Rd. to Rte 12           | AM       | 14                                   | 10                               | 4                                | 42                              | 55                        |
|          |     |                                       | PM       | 14                                   | 10                               | 4                                | 42                              | 55                        |
|          |     | Rte 12 to Wilfred Avenue              | AM       | 5                                    | 4                                | 1                                | 48                              | 65                        |
|          |     |                                       | PM       | 10                                   | 4                                | 6                                | 24                              | 65                        |
|          | NB  | Wilfred Ave. to Rte 12                | AM       | 11                                   | 4                                | 7                                | 24                              | 65                        |
|          |     |                                       | PM       | 5                                    | 4                                | 1                                | 53                              | 65                        |
|          |     | Rte12 to Windsor River Rd.            | AM       | 11                                   | 10                               | 1                                | 50                              | 55                        |
|          |     |                                       | PM       | 11                                   | 10                               | 1                                | 50                              | 55                        |

## GENERAL FACILITY INFORMATION

- Mainline HOV Lanes
- Toll Bridge HOV Bypass Lanes

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#### MAINLINE HOV LANES

#### ALA-80: San Francisco-Oakland Bay Bridge Toll Plaza

OCCUPANCY Three or more persons per vehicle, motorcycles, 2-seat vehicles with 2 persons,

inherently low-emission vehicles (ILEVs) with DMV issued decal.

WESTBOUND HOURS: 5:00 - 10:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS: Lane 1: Route 880 left side HOV ramp to metering signals

Length = 0.4 mile

Lane 2: Route 580 connector to metering signals

Length = 1.1 miles

Lane 21: Route 880 right side HOV ramp to metering signals

Length = 0.6 mile

Lane 22: HOV slip ramp to metering signals

Length = 0.8 miles

DATES: Apr 17, 1970 Opened; Buses only

Dec 8, 1971 Carpools permitted; min. occ. three persons per vehicle Feb 2, 1979 Buses only in lane 17; 6:30-8:30, Mon-Fri-only lane on

W. Grand Ave, approached from Maritime on-ramp to toll plaza;

temporary measure in response to BART tube closure

Apr 17, 1979 Bus-only in lane 17 & W. Grand Ave approach made permanent;

W. Grand Ave slip ramp designated for buses only; hours of operation changed to 6:00-9:00 AM, Mon-Fri; lane 8 reverted to mixed flow; carpools permitted to use lane 10 during AM peak

Oct 12, 1981 Opened; lanes 18 & 19; buses only, 24 hours/day, 7 days/week;

carpools permitted, 6:00-9:00 AM, Mon-Fri; lane 17 reverted to

mixed flow

Jul 18, 1983 Lanes 8 & 9 reverted to mixed flow; lane 1 converted to HOV;

lanes 18/19 merge moved from downstream of toll plaza to

downstream of metering signals

Apr 22, 1986 Mini toll plaza (lane 18, 19, 20) opened; right side HOV lanes

designated as lanes 21 & 22

Sep 7, 1988 Hours of Operation were extended from 6-9 AM to 5-10 AM

on September 7, 1988.

Sep 7, 1988 The HOVL violation fine increased in early 1989.

Nov 3, 1989 Lane 2 converted to HOV; left HOVL extended upstream to 32nd

St on-ramp; AM HOV hours changed to 5:00- 10:00 AM, Mon-Fri

Mar 1, 1992 Motorcycles permitted

Oct 1, 1995 Two-seat vehicles with two occupants permitted

Apr 8, 1997 HOV slip ramp approaching right side of toll plaza opened;

buses only, 24 hours/day, 7 days/week; carpools/motorcycles

OK, 5:00-10:00 AM, 3:00-6:00 PM, Mon-Fri

Jul 23, 1997 Route 880 right side HOV ramp opened; buses only, 24 hours/day,

7 days/week; carpools/motorcycles OK, 5:00-10:00 AM;

3:00-6:00 PM, Mon-Fri

Feb. 2, 1998 PM Hours of operation changed to 3:00-7:00 PM

May 16, 1998 Route 880 left side HOV ramp opened; buses/carpools/

motorcycles only, 5:00-10:00 AM, 3:00-7:00 PM, Mon-Fri

Jul 1, 2000 Inherently low-emission vehicles with DMV issued decals permitted.

Jul 1, 2010 HOVs charged \$2.50 toll and required to use designated toll booths or toll lanes.

#### **ALA-80: HOV FLYOVER**

OCCUPANCY Three or more persons per vehicle, motorcycles, 2 seaters vehicles with 2 persons,

inherently low-emission vehicles (ILEVs) with DMV issued decal.

WESTBOUND HOURS: 5:00 - 10:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS: Powell St (MP 3.8) to HOV Slip Ramp(MP. 4.8)

Length = 1.0 miles

Feb 2, 1998 Opened; HOV flyover. Hours of operation 5:00 AM-7:00 PM,

Monday thru Friday

Aug 3, 1998 Hours of operation changed to 5-10 AM, 3-7 PM, Mon-Fri

#### ALA-80: Contra Costa County Line to I-880 Viaduct

OCCUPANCY Three or more persons per vehicle, motorcycles, 2 seaters vehicles with 2 persons,

inherently low-emission vehicles (ILEVs) with DMV issued decal.

WESTBOUND HOURS: 5:00 - 10:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS: Contra Costa County Line (MP 8.0) to Powell St (MP 3.8)

Length = 4.2 miles

DATES: Feb. 2, 1998 Opened; Contra Costa County Line to Powell St;

HOV flyover opened; hours of operation 5:00 AM-7:00 PM,

Monday thru Friday

Aug 3, 1998 Hours of operation changed to 5-10 AM, 3-7 PM, Mon-Fri

EASTBOUND HOURS: 5:00 - 10:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS: I-880 Viaduct(MP 2.2) to Contra Costa County Line (MP 8.0)

Length = 5.8 miles

DATES: Jul 31, 1998 Opened; Gilman St to Contra Costa County Line

Aug 3, 1998 Hours of operation changed to 5-10 AM, 3-7 PM, Mon-Fri

Nov 20, 1998 Extended; Powell St to Gilman St. Nov 12, 2003 Extended; I 880 Viaduct to Powell St.

#### ALA-84: I-880 to Dumbarton Bridge Toll Plaza

OCCUPANCY Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs)

with DMV issued decal.

WESTBOUND HOURS: 5:00 - 10:00 AM, 3:00 - 6:00 PM, Monday thru Friday

LIMITS: I-880 (MP 5.9) to west of Toll Plaza (MP 3.1)

Length = 2.8 miles

DATES: Oct 6, 1982 Opened with new bridge; 1000-ft long bypass lane at booths

Nov 22, 1989 Extended due to Loma Prieta quake; Newark Blvd to

University Ave

Nov 17, 1990 Shortened; Newark Blvd to west of Toll Plaza

Jan 1, 1992 Minimum occupancy reduced from three to two persons per vehicle

Jul 31, 2008 Extended; I-880/SR 84 Jct to Newark Blvd.

Jul 1, 2010 HOVs charged \$2.50 toll and required to use designated toll lane.

#### ALA-92: Hesperian Blvd to San Mateo Bridge Toll Plaza

OCCUPANCY Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs)

with DMV issued decal.

WESTBOUND HOURS: 5:00 - 10:00 AM, 3:00 - 6:00 PM, Monday thru Friday

LIMITS: Hesperian on-ramp (MP 5.6) to Toll Plaza (MP 2.8)

Length = 2.8 miles

DATES: Oct 23, 1989 Opened; Clawiter Rd on-ramp to east of Toll Plaza

Jan 1, 1992 Minimum occupancy reduced from three to two persons per vehicle

Jan 15, 1992 Extended; Clawiter Rd on-ramp to west of Toll Plaza

Jul 2, 2001 Extended and relocated; Hesperian Blvd. To West of Toll Plaza

Jun 3, 2003 Speed changed from 55mph to 65 mph

July 8, 2007 Lane #1 and #2 opened for HOVs during both AM and PM peak periods. July 1, 2010 HOVs charged \$2.50 toll and required to use designated toll booths.

#### ALA-580: Hacienda Dr. to Greenville Road

OCCUPANCY Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs)

with DMV issued decal.

Eastbound HOURS: 5:00 - 10:00 AM, 3:00 - 6:00 PM, Monday thru Friday

LIMITS: Hacienda Dr(MP19.05) to Greenville Road(MP 8.7)

Length = 10.4 miles

DATES: Oct 2, 2009 Opened; N. Livermore Ave to Greenville Road

Jul 19, 2010 Extended; Airway Blvd on-ramp to N Livermore Ave

Nov 5, 2010 Extended; Hacienda Dr to Airway Blvd.

#### ALA-680: Route 84 to ALA/SCL Co. Line

OCCUPANCY Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs)

with DMV issued decal.

SOUTHBOUND HOURS: 5:00 - 8:00 PM, Monday thru Friday

LIMITS: Route 84 on-ramp (MP R11.5) to Route 237 Calaveras Blvd. On-ramp (MP 7.6)

Length = 11.2 miles

DATES: Nov 26, 2002 Opened; Washington Blvd. On-ramp to Route 237 Calaveras Blvd. On-ramp

Dec 5, 2002 Extended; Route 84 on-ramp to Route 237 Calaveras Blvd. On-ramp

Sep 20, 2010 HOV Lane converted to Express Lane.

#### **ALA 880: Marina Blvd to Santa Clara County Line**

OCCUPANCY Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs)

with DMV issued decal.

SOUTHBOUND HOURS: 5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS: Marina Blvd. (MP 22.7) to Santa Clara County Line (MP 0.0)

Length = 22.5 miles

DATES: Sep 22, 1991 Opened; A-Street to north of Tennyson

Nov 6, 1991 Extended; Tennyson to Industrial Pkwy

Jun 26, 1992 Extended; Rte 238 to A-Street

Nov 18, 1993 Extended; Industrial Pkwy to Whipple Rd

Dec 1994 Hours of operation changed from 5-10 AM and 3-6 PM to

5-9 AM, 3-7 PM respectively

Mar 17, 1995 Extended; Marina Blvd to Rte 238

Jun 15, 1998 Extended; Whipple Rd. to Alvarado/ Fremont Blvd.

Oct 23, 1998 Extended; Alvarado/Fremont Blvd. to Mowry Ave.

Dec 11, 1998 Extended; Mowry Ave. to Mission Blvd. (Rte 262)

Aug 11, 2007 Extended; S/O Mission Blvd. (Rte 262) to Santa Clara County Line Nov 17, 2008 Extended; Mission Blvd. (Rte 262) to S/O Mission Blvd. (Rte 262)

NORTHBOUND HOURS: 5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS: Santa Clara County Line (MP 0.0) to one mile south of Rte 238 (MP 19.3)

Length = 19.1 miles

DATES: Sep 19, 1991 Opened; north of Tennyson to A-Street

Nov 8, 1991 Extended; Industrial Pkwy to Tennyson

Jun 26, 1992 Extended; A-Street to Rte 238

Dec 3, 1993 Extended; Whipple Rd to Industrial Pkwy

Dec 1994 Hours of operation changed from 5-10 AM and 3-6 PM to

5-9 AM, 3-7 PM respectively

Sep 23, 1996 Shortened; Whipple Rd to one mile south of Rte 238

Jun 15, 1998 Extended; Alvarado/Fremont Blvd. to Whipple Rd.

Oct 30, 1998 Extended; Mowry Ave. to Alvarado/Fremont Blvd.

Nov 30, 1998 Extended; Mission Blvd. (Rte 262) to Mowry Ave.

Nov 11, 2008 Extended; Santa Clara County Line to Mission Blvd. (Rte 262)

#### ALA-880: 16th Street to SFOBB Toll Plaza

OCCUPANCY Three or more persons per vehicle, motorcycles, 2-seat vehicles with 2 persons,

inherently low-emission vehicles (ILEVs) with DMV issued decal.

NORTHBOUND HOURS: 5:00 - 10:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS: 16th Street to NB Rte 880/WB Rte 80 Jct

Length = 1.4 miles

DATES: May 16, 1998 Opened; 16th Street to left HOV ramp at SFOBB Toll Plaza

#### ALA-880: West Grand Ave. to EB Rte 80 HOV Lane Merge

OCCUPANCY Three or more persons per vehicle, motorcycles, 2-seat vehicles with 2 persons,

inherently low-emission vehicles (ILEVs) with DMV issued decal.

NORTHBOUND HOURS: 5:00 - 10:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS: West Grand Ave.(MP R34.7) to EB Rte 80 HOV Lane Merge (MP R35.8)

Length = 1.1 miles

DATES: Nov 12, 2003 Opened; West Grand Ave to EB Rte 80 HOV Lane Merge

#### CC-4: Loveridge Rd. to Port Chicago Highway

OCCUPANCY Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs)

with DMV issued decal.

WESTBOUND HOURS: 5:00 - 9:00 AM, Monday thru Friday

LIMITS: Loveridge Rd. (MP 24.4) to Port Chicago Highway (MPR 15.7)

Length = 8.7 miles

DATES: May 1, 2000 Opened; Bay Point to Port Chicago Highway; 6-9 AM, Mon-Fri

May 5, 2000 Extended: Bailey Road to Port Chicago Highway

Jul 23, 2001 Extended: West of Railroad Ave. to Port Chicago Highway

Jul 24, 2006 Extended: Loveridge Rd. to Port Chicago Highway Sep 28, 2009 Hours of Operations changed to 5:00-9:00 A.M.

EASTBOUND HOURS: 3:00 - 7:00 PM, Monday thru Friday

LIMITS: Port Chicago Highway (MPR 16.2) to Railroad Ave. (MPR23.5)

Length = 7.3 miles

DATES: Aug 6, 2001 Opened; Port Chicago Highway to West of Railroad Ave.

Jul 24, 2006 Extended: Port Chicago Highway to Railroad Ave.

#### **CC-80 Solano County Line to Alameda County Line**

OCCUPANCY Three or more persons per vehicle, motorcycles, 2-seat vehicles with 2 persons,

inherently low-emission vehicles (ILEVs) with DMV issued decal.

WESTBOUND HOURS: 5:00 - 10:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS: Solano County Line (MP 14.1) to Alameda County Line (MP 0.0)

Length = 14.1 miles

DATES: Mar 5, 1997 Opened; Pinole Valley Rd to Cutting Blvd; 5-10 AM, Mon-Fri

Apr 18, 1997 2-seat vehicles with 2 persons permitted to use HOVL

May 3, 1997 Extended: Cutting Blvd to Central Ave Sep 20, 1997 Extended; Route 4 to Pinole Valley Rd

Feb 2, 1998 Extended; Central Ave to Alameda County Line;

Hours of operation changed to 5:00 AM-7:00 PM, Mon-Fri

Aug 3, 1998 Hours of operation changed to 5-10 AM, 3-7 PM, Mon-Fri

Aug 31,2007 Extended; Cummings Skyway to Route 4

Nov 17, 2007 Extended; Solano County Line to Cummings Skyway

EASTBOUND HOURS: 5:00 - 10:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS: Alameda County Line (MP 0.0) to West of Route 4 off-ramp (MP 9.5)

Length = 9.5 miles

DATES: Feb 12, 1997 Opened; San Pablo Dam Rd to Pinole Valley Rd; 3-7 PM, Mon-Fri

Feb 13, 1997 Extended; Cutting Blvd to San Pablo Dam Rd
Apr 18, 1997 2-seat vehicles with 2 persons permitted to use HOVL

May 3, 1997 Extended; Central Ave to Cutting Blvd Aug 30, 1997 Extended; Pinole Valley Rd to Route 4

Feb 2, 1998 Hours of operation changed to 5:00 AM-7:00 PM, Mon-Fri Aug 3, 1998 Hours of operation changed to 5-10 AM, 3-7 PM, Mon-Fri

Extended; Central Ave to Alameda County Line

#### CC-680: N/O Marina Vista to Benicia-Martinez Bridge Toll Plaza

OCCUPANCY Three or more persons per vehicle, motorcycles, 2-seat vehicles with 2 persons,

inherently low-emission vehicles (ILEVs) with DMV issued decals.

NORTHBOUND HOURS: 5:00 - 10:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS: Benicia-Martinez Bridge Toll Plaza (24.5) to North of Marina Vista(24.1)

Length = 1.0 miles

DATES: Aug 26, 2007 Opened; Opened with new bridge; 1.0 mile long bypass lane #1

from N/O Marina Vista to Toll Plaza

Jul 1, 2010 HOVs charged \$2.50 toll and required to use designated toll booth or toll lane.

#### CC-680: Marina Vista to N/O North Main St.

OCCUPANCY Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs)

with DMV issued decal.

SOUTHBOUND HOURS: 5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS: South of Marina Vista(MP 24.1) to 0.7 miles N/O North Main St. off-ramp (MP 16.3)

Length = 7.8 miles

DATES: Sep 11, 2004 Opened; S/O Route 4 to N/O North Main St.

Jun 14, 2005 Extended S/O Marina Vista to North Main St.
Sep 28, 2009 Hours of Operations changed to 5:00-9:00 AM

NORTHBOUND HOURS: 5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS: Route 242 I/C (R18.7) to South of Marina Vista(24.1)

Length = 4.4 miles

DATES: Apr 28, 2005 Opened; Route 242 to South of Marina Vista.

Sep 28, 2009 Hours of Operations changed to 5:00-9:00 AM

#### CC-680: Livorna Rd to Alcosta Blvd.

OCCUPANCY Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs)

with DMV issued decal.

SOUTHBOUND HOURS: 5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS: 0.5 miles north of Livorna Rd off-ramp (MP R11.3) to north of

Alcosta Blvd on-ramp (MP R21.3)

Length = 11.9 miles

DATES: Oct 3, 1994 Opened; Stone Valley Rd on-ramp to Alcosta Blvd on-ramp

Feb 6, 1995 Extended; Livorna Rd on-ramp to Alcosta Blvd

May 5, 1999 Shortened; Livorna Rd on-ramp to north of Alcosta Blvd off-ramp Sep 28, 2009 Hours of Operations changed to 5:00-9:00 AM , 3:00-7:00 PM

NORTHBOUND HOURS: 5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS: 0.4 miles south of Alcosta on-ramp (MP R0.0) to Livorna

on-ramp (MP R11.9) Length = 11.9 miles

DATES: Oct 3, 1994 Opened; Alcosta Blvd on-ramp to Stone Valley Rd on-ramp

Feb 6, 1995 Extended; Alcosta Blvd to Livorna Rd on-ramp

Sep 28, 2009 Hours of Operations changed to 5:00-9:00 AM, 3:00-7:00 PM

#### MRN-101: Route 37 to Richardson Bridge

OCCUPANCY Two or more persons per vehicle, motorcycles permitted, inherently low-emission vehicles (ILEVs)

with DMV issued decal.

SOUTHBOUND HOURS: 6:30 - 8:30 AM, Monday thru Friday

LIMITS: Route 37 (MP18.9) to Richardson Bridge (MP 4.8)

Length = 14.1 miles

DATES: Dec 23, 1974 Opened; buses only

Jun 16, 1976 Carpools permitted; min. occ. three persons per vehicle

Jul 24, 1987 Opened; Marinwood to North San Pedro Rd

Oct 1, 1988 Minimum occupancy reduced from three to two persons per vehicle

Sep 23, 1990 Motorcycles permitted

Feb 8, 1991 Extended; Marinwood to Rte 37
Jul 13, 1998 HOV hours extended to 5:00-9:00 AM

Dec 14, 1998 Extended hours cancelled

Jul 17, 2006 Extended; Andersen Dr. to North of Greenbrae ped OC

Nov 13, 2008 Extended; Mission Ave. to Anderson Dr.

Feb 2, 2009 Continuous HOV Lane; New Limit; Rte 37 to Richardson Bridge

NORTHBOUND HOURS: 4:30 - 7:00 PM, Monday thru Friday

LIMITS: Richardson Bridge (MP 3.9) to South of Route 37 (MP18.3)

Length = 14.4 miles

DATES: Dec 20, 1974 Opened; buses only

Jun 15, 1976 Carpools permitted; min. occ. three persons per vehicle

Aug 12, 1986 Opened; North San Pedro to Marinwood

Oct 1, 1988 Minimum occupancy reduced from three to two persons per vehicle

Sep 23, 1990 Motorcycles permitted

Jul 13, 1998 HOV hours extended to 3:00-7:00 PM

Dec 14, 1998 Extended hours cancelled

Jul 20, 2006 Extended: North of Corte Madera to Nellen Ave. UC

Apr 24, 2009 Continuous HOV Lane. New Limit; Richardson Bridge to Rte 37

#### SCL-85: Rte 101 (Mountain View) to Rte 101 (San Jose)

OCCUPANCY Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs)

with DMV issued decal.

SOUTHBOUND HOURS: 5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS: Rte 85/101 connector ramp in So. San Jose (MP 23.8) to Rte 101 in

Mountain View (MP 0.0) Length = 23.8 miles

DATES: Apr 25, 1990 Opened; Rte 237 to Rte 280

Aug 12, 1994 New section; Almaden Expwy to Bernal Rd
Oct 19, 1994 Extended; Rte 280 to Almaden Expwy
Nov 13, 1998 Extended; Rte 101 (Mountain View) to Rte 237

Oct 22, 2004 Opened direct HOV Connector from Rte 85 to Rte 101(San Jose)

May 26, 2006 Opened direct HOV Connector from Rte 101 to Rte 85(Mountain View)

NORTHBOUND HOURS: 5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS: Rte 85/101 connector ramp in So. San Jose (MP 0.0) to

Rte 101 in Mountain View (MP 24.2)

Length = 24.2 miles

DATES: Feb 22, 1990 Opened; Rte 280 to Rte 237

Aug 12, 1994 New section; Rte 101 (San Jose) to Almaden Expwy

Oct 19, 1994 Extended; Almaden Expwy to Rte 280

Nov 6, 1998 Extended; Rte 237 to Rte 101 (Mountain View)

Sep 20, 2004 Opened direct HOV Connector from Rte 101 to Rte 85(San Jose)

May 26, 2006 Opened direct HOV Connector from Rte 85 to Rte 101(Mountain View)

#### SCL-87: Route 101 I/C to Route 85 I/C

OCCUPANCY Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs)

with DMV issued decal.

SOUTHBOUND HOURS: 5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS: Route 101 I/C to Route 85 I/C

Length = 9.6 miles

DATES: Dec 23, 2004 Opened; Rte 101 to Taylor Avenue

Mar 16, 2007 New Section; Rte 280 to SR 85
Jul 26, 2007 Extended; Taylor Avenue to Route 280

NORTHBOUND HOURS: 5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS: Route 85 I/C (MP0.0) to Route 101 I/C (MP9.2)

Length = 9.2 miles

DATES: Apr 18, 2005 Opened; Taylor Avenue to Rte 101

Feb 4, 2007 New Section; SR 85 to Rte 280 May 24, 2007 Extended; Rte 280 to Taylor Avenue

#### SCL-101: San Mateo County Line to Cochrane Rd

OCCUPANCY Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs)

with DMV issued decal.

SOUTHBOUND HOURS: 5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS: San Mateo County Line (MP 52.6) to 0.5 mile north of Cochrane Rd

off-ramp (MP 18.4) Length = 34.2 miles

DATES: Nov 10, 1986 Opened; Lawrence Expwy to De La Cruz Blvd

Aug 8, 1988 Extended; Ellis St to Lawrence Expwy
Oct 10, 1988 Extended; N. Rengstorff Ave to Ellis St

Dec 12, 1988 Extended; San Mateo Co. Line to N. Rengstorff Ave

Jun 15, 1990 New section; Rte 101/280/680 I/C to north of Bernal Rd

Jan 29, 1993 Extended; Rte 880 to Rte 101/280/680 I/C

Apr 5, 1993 Extended; De La Cruz Blvd to Rte 880
Mar 19, 2003 Opened; Bernal Road to Cochrane Road

NORTHBOUND HOURS: 5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS: Cochrane Rd on-ramp (MP 17.8) to San Mateo County Line (MP 52.6)

Length = 34.8 miles

DATES: Nov 7, 1986 Opened; Guadalupe Pkwy to Great America Pkwy

Oct 10, 1988 Extended; Great America Pkwy to N. Rengstorff Ave
Dec 12, 1988 Extended; N. Rengstorff Ave to San Mateo Co. Line
Jun 7, 1990 New section; Bernal Rd to Rte 101/280/680 I/C
Feb 1, 1993 Extended; Rte 101/280/680 I/C to Old Oakland Rd
Apr 5, 1993 Extended; Old Oakland Rd to Guadalupe Pkwy

May 19, 2003 Opened; Cochrane Rd to Bernal Road

#### SCL-237: Rte 880 to Mathilda Ave

OCCUPANCY Two or more persons per vehicle, motorcycles, inherently low-emission vehicles

(ILEVs) with DMV issued decal.

WESTBOUND HOURS: 5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS: Jct. Rte 880/237 (MP 9.3) to east of Mathilda Ave (MP 3.2)

Length = 6.1 miles

DATES: Oct 31, 1984 Opened; Rte 880 to Lawrence Expwy; right side HOVL

Nov/Dec 1991 Extended; Lawrence Expwy to east of Mathilda Ave; right side HOVL

May 1, 1995 Rte 237 upgraded to fwy; HOVL relocated to left lane;

hours expanded to include the PM peak (3-7 PM)

May 1, 2005 Opened direct HOV connectors SB 880/WB 237

EASTBOUND HOURS: 5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS: Mathilda Ave (MP 2.8) to Jct Rte 880/237 (MP 9.3)

Length = 6.5 miles

DATES: Oct 31, 1984 Opened; Lawrence Expwy to Rte 880; right side HOVL

Nov/Dec 1991 Extended; Mathilda Ave to Rte 880

May 1, 1995 Rte 237 upgraded to fwy; HOVL relocated to left lane; hours expanded to include the AM peak (5-9 AM)

Oct 2, 1996 Shortened; Mathilda Ave to 1.1 miles west of Rte 880 Apr. 29, 2005 Opened; Route 880/237 HOVL Direct Connector

#### SCL-280: Magdalena Ave to Leland Ave

OCCUPANCY Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs)

with DMV issued decal.

SOUTHBOUND HOURS: 5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS: Magdalena Ave on-ramp (MP 14.0) to north of Meridian Ave (MP R4.2)

Length = 10.5 miles

DATES: Dec 1, 1990 Opened; Magdalena Ave to north of Meridian Ave

NORTHBOUND HOURS: 5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS: South of Leland Ave (MP L4.7) to Magdalena Ave off-ramp (MP 14.0)

Length = 10.8 miles

DATES: Nov 21, 1990 Opened; south of Leland Ave to Magdalena Ave

#### SCL-680: ALA/SCL County Line to Route 237 Calaveras Blvd.

OCCUPANCY Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs)

with DMV issued decal.

SOUTHBOUND HOURS: 5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS: Alameda County Line (MP 9.9) to Route 237 Calaveras Blvd. On-ramp (MP M7.6)

Length = 2.3 miles

DATES: Nov 26, 2002 Opened; Washington Blvd. On-ramp to Route 237 Calaveras Blvd. On-ramp

Dec 5, 2002 Extended; Route 84 on-ramp to Route 237 Calaveras Blvd. On-ramp

#### SCL-880: Alameda County Line to I-880/SR 237 Junction

OCCUPANCY Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs)

with DMV issued decal.

SOUTHBOUND HOURS: 5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS: Alameda County Line (MP 10.5) to Jct I-880/237 (MP 8.5)

Length = 2.0 miles

DATES: May 1, 2005 Opened; S/O Dixon Landing to I-880/SR 237 Jct.

August 11, 2007 Extended; Alameda County Line To S/O Dixon Landing Rd.

NORTHBOUND HOURS: 5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS: I-880/237 Jct (MP 8.5) to Alameda County Line (MP 10.5)

Length = 2.0 miles

DATES: Apr 22, 2005 Opened; I-880/SR 237 Jct to S/O Dixon Landing Rd.

Nov 11, 2008 Extended; S/O Dixon Landing Rd. to Alameda County Line

#### SM-101: Whipple Ave to Santa Clara County Line

OCCUPANCY Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs)

with DMV issued decal.

SOUTHBOUND HOURS: 5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS: Whipple Ave (MP 6.9) to Santa Clara Co. Line (MP 0.0)

Length = 6.9 miles

DATES: Jul 18, 1991 Opened

NORTHBOUND HOURS: 5:00 - 9:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS: Santa Clara Co. Line (MP 0.0) to Whipple Ave (MP 6.6)

Length = 6.6 miles

DATES: Jul 16, 1991 Opened

#### SOL-80: East of Airbase Parkway to Red Top Road

OCCUPANCY Two or more persons per vehicle, motorcycles, 2-seat vehicles with 2 persons,

inherently low-emission vehicles (ILEVs) with DMV issued decals.

WESTBOUND HOURS: 5:00 - 10:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS: East of Airbase Parkway(MP19.93) to East of Red Top Road(MP11.85)

Length = 8.1 mile

DATE: Oct 1, 2009 Opened

EASTBOUND HOURS: 5:00 - 10:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS: Red Top Road On Ramp(MP11.5) to East of Airbase Parkway(MP19.7)

Length = 8.2 mile

DATE: Nov 4, 2009 Opened

#### **SOL-80: Route 29 to Contra Costa County Line**

OCCUPANCY Three or more persons per vehicle, motorcycles, 2-seat vehicles with 2 persons,

inherently low-emission vehicles (ILEVs) with DMV issued decals.

WESTBOUND HOURS: 5:00 - 10:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS: Route 29 (MP 0.9) to Contra Costa County Line (MP 0.0)

Length = 0.9 mile

DATES: Nov 17, 2007 Extended; Route 29 to Contra Costa County Line

### SOL-80: Carquinez Bridge Toll Plaza

OCCUPANCY Three or more persons per vehicle, motorcycles, 2-seat vehicles with 2 persons,

inherently low-emission vehicles (ILEVs) with DMV issued decals.

EASTBOUND HOURS: 5:00 - 10:00 AM, 3:00 - 7:00 PM, Monday thru Friday

LIMITS: 0.1 miles West of Toll Plaza (MP 0.5) to east of Toll Plaza (MP 0.6)

Length = 0.1 mile

DATES: Jul 1, 1991 Reduced 10c toll tickets for HOVs (with purchase of 50-ticket book)

Oct 1, 1995 Toll-free passage in designated booth only;

Two-seat vehicles with two occupants permitted

Jul 30, 1997 Opened; West of Toll Plaza to east of Toll Plaza

Aug 11, 2007 HOV Lane moved from toll booth #6 to toll booth #1

Oct 29, 2007 HOV allowed in Booth # 11

Jul 1, 2010 HOVs charged \$2.50 toll and required to use designated toll booths.

#### SON-101: Windsor River Road to Wilfred Avenue

OCCUPANCY Two or more persons per vehicle, motorcycles, inherently low-emission vehicles (ILEVs)

with DMV issued decal.

SOUTHBOUND HOURS: 7:00 - 9:00 AM, 3:00 - 6:30 PM, Monday thru Friday

LIMITS: Windsor River Road On-Ramp (MP 29.3) to Wilfred Avenue (MP15.5)

Length = 13.8 miles

DATES: Nov 4, 2002 Opened.

Dec 11, 2003 Hours of Operation changed to 7-9 AM, 3-6:30 PM, MON - FRI

Nov 10, 2008 Extended; Steele Lane to Route 12

Dec 7, 2009 Extended; Windsor River Rd to Steele Lane

NORTHBOUND HOURS: 7:00 - 9:00 AM, 3:00 - 6:30 PM, Monday thru Friday

LIMITS: Wilfred Avenue(MP 15.4) to South of Windsor River Road (MP29.0)

Length = 13.6 miles

DATES: Nov 4, 2002 Opened.

Dec 11, 2003 Hours of Operation changed to 7-9 AM, 3-6:30 PM, MON - FRI

Nov 10, 2008 Extended; Route 12 to Steele Lane

Dec 6, 2009 Extended; Steele Lane to Windsor River Rd

### **TOLL BRIDGE HOV BYPASS LANES**

#### **Antioch Bridges**

OCCUPANCY Three or more persons per vehicle, motorcycles, two-seat vehicles

with two occupants, inherently low-emission vehicles (ILEVs) with DMV issued decals.

HOURS 5:00 - 10:00 AM, 3:00 - 7:00 PM, Monday thru Friday

HOV TOLL BOOTH Antioch #3

DATES Jul 1, 1991

1 Reduced 10¢ toll tickets for HOVs (with purchase of 50-ticket book)

Oct 1, 1995

Toll-free passage in designated booth only; Two-seat vehicles with two occupants permitted

Jul 1,2010

HOVs charged \$2.50 toll and required to use designated toll booth

#### **Benicia-Martinez Bridge**

OCCUPANCY Three or more persons per vehicle, motorcycles, two-seat vehicles

with two occupants, inherently low-emission vehicles (ILEVs) with DMV issued decals.

HOURS 5:00 - 10:00 AM, 3:00 - 7:00 PM, Monday thru Friday

HOV TOLL BOOTH/LANE Benicia Br. Left side bypass lane and Toll Booth #3

DATES See information in Mainline HOV Lane Section

### Richmond-San Rafael Bridge

OCCUPANCY Three or more persons per vehicle, motorcycles, two-seat vehicles

with two occupants, inherently low-emission vehicles (ILEVs) with DMV issued decals.

HOURS 5:00 - 10:00 AM, 3:00 - 6:00 PM, Monday thru Friday

HOV TOLL #1

**BOOTH** 

DATES Oct. 23, 1989 Toll-free passage in designated booth only;

Oct 1, 1995 Two-seat vehicles with two occupants permitted Oct 16, 2007 HOV allowed moved from booth #4 to booth #3

Oct 29, 2007 HOV allowed in Booth #6

Jul 1, 2010 HOVs charged \$2.50 toll and required to use designated toll booth

### **TOLL BRIDGE HOV BYPASS LANES**

#### **Dumbarton Bridge**

OCCUPANCY Two or more persons per vehicle, motorcycles, inherently low-emission

vehicles (ILEVs) with DMV issued decal.

HOURS 5:00 - 10:00 AM, 3:00 - 6:00 PM, Monday thru Friday

HOV TOLL LANE Left side bypass lane

DATES See information in Mainline HOV Lane section

#### San Mateo-Hayward Bridge

OCCUPANCY Two or more persons per vehicle, motorcycles, inherently low-emission

vehicles (ILEVs) with DMV issued decal.

HOURS 5:00 - 10:00 AM, 3:00 - 6:00 PM, Monday thru Friday

HOV TOLL

#1 and #2

**BOOTHS** 

DATES See information in Mainline HOV Lane section

### San Francisco-Oakland Bay Bridge

OCCUPANCY Three or more persons per vehicle, motorcycles, two-seat vehicles

with two occupants, inherently low-emissions vehicles (ILEVs)

with DMV issued decal.

HOURS 5:00 - 10:00 AM, 3:00 - 7:00 PM, Monday thru Friday

HOV TOLL #1, #2 and two right side bypass lanes

**BOOTHS/LANES** 

DATES See information in Ala-80 Mainline HOV Lane section

### **TOLL BRIDGE HOV BYPASS LANES**

### **Carquinez Bridge**

OCCUPANCY Three or more persons per vehicle, motorcycles, two-seat vehicles

with two occupants, inherently low-emissions vehicles (ILEVs)

with DMV issued decal.

HOURS 5:00 - 10:00 AM, 3:00 - 7:00 PM, Monday thru Friday

HOV TOLL

**BOOTHS** 

#1, #6

DATES See information in Sol-80 Mainline HOV lane section

# **MAINLINE HOV LANES**

# VOLUME/PERSON DATA and VIOLATION HISTORY

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### Westbound - A.M.

San Francisco-Oakland Bay Bridge Toll Plaza

Typical data for 2010

12.5 %

#### PEAK PERIOD (5)

#### **PEAK HOUR**

6:00 - 10:00 AM

| 7:00 - 8:00 A | ۱V |
|---------------|----|
|               |    |

| VEHICLES                   | HOV Lanes | Mixed Flow<br>Lanes  | HOV Lanes | Mixed Flow<br>Lanes |
|----------------------------|-----------|----------------------|-----------|---------------------|
| Motorcycles                | 588       | _                    | 155       | _                   |
| Buses (4)                  | 285       | _                    | 97        | _                   |
| Carpools (1)               | 5936      | _                    | 2273      | _                   |
| 2 - seaters (2)            | 1678      | _                    | 593       | _                   |
| Hybrid                     | 962       |                      | 305       |                     |
| Vanpools                   | 107       | _                    | 26        | _                   |
| Violators                  | 1448      |                      | 492       | _                   |
| TOTAL                      | 11004     | 24011 <sup>(7)</sup> | 3941      | 5464                |
| PERSONS                    | HOV Lanes | Mixed Flow<br>Lanes  | HOV Lanes | Mixed Flow<br>Lanes |
| Motorcycles                | 588       | _                    | 155       | _                   |
| Buses (4)                  | 9975      |                      | 3395      | _                   |
| Carpools (1)               | 18402     |                      | 7046      | _                   |
| 2 - seaters (2)            | 3356      |                      | 1186      |                     |
| Hybrid                     | 962       |                      | 305       |                     |
| Vanpools                   | 1070      | _                    | 260       | _                   |
| Violators                  | 2279      |                      | 801       |                     |
| TOTAL                      | 36632     | 27613 <sup>(7)</sup> | 13148     | 6284                |
| RATES                      |           |                      |           |                     |
| HOV Lane<br>Occupancy Rate | 3.3       | persons/veh          | 3.3       | persons/veh         |
| Mixed Flow (7)             | 1.2       | persons/veh          | 1.2       | persons/veh         |

- **NOTES:** (1) 3 or more persons per vehicle.
  - (2) 2 seater vehicles with 2 persons.

13.2 %

(3) Violation rate = no. of violators in HOV lane x 100%

Total no. of vehicles in HOV lane

(4) Assumed AM bus occupancy = 35 persons/vehicle.

- (5) HOV lanes in operation from 5:00 to 10:00 AM.
- (6) Observations conducted 5/13/10 at the SFOBB Toll Plaza.
- (7) Data from Toll Plaza Vehicle Registration Report.

Occupancy Rate

Violation rate

(HOV Lane)

### Westbound - P.M.

San Francisco-Oakland Bay Bridge Toll Plaza

Typical data for 2016 (6)

#### PEAK PERIOD (5)

#### **PEAK HOUR**

3:00 - 7:00 PM

5:00 - 6:00 P.M.

|   | 3.00 - 7.00 PIVI |                     |     | 5.00 - 6.00 P.W. |                     |
|---|------------------|---------------------|-----|------------------|---------------------|
| VEHICLES                                    | HOV Lanes        | Mixed Flow<br>Lanes |     | HOV Lanes        | Mixed Flow<br>Lanes |
| Motorcycles                                 | 218              | _                   | _   | 69               | _                   |
| Buses (4)                                   | 321              | _                   |     | 91               |                     |
| Carpools (1)                                | 1539             | _                   | _   | 401              |                     |
| 2 - seaters (2)                             | 443              | _                   |     | 140              |                     |
| Hybrid                                      | 402              |                     |     | 123              |                     |
| Vanpools                                    | 60               | _                   |     | 11               |                     |
| Violators                                   | 455              |                     | _   | 106              |                     |
| TOTAL                                       | 3438             | 24381               | (7) | 941              | 6630                |
| PERSONS                                     | HOV Lanes        | Mixed Flow<br>Lanes |     | HOV Lanes        | Mixed Flow<br>Lanes |
| Motorcycles                                 | 218              | _                   | _   | 69               |                     |
| Buses (4)                                   | 5136             | _                   | _   | 1456             |                     |
| Carpools (1)                                | 4771             | _                   |     | 1243             |                     |
| 2 - seaters (2)                             | 886              | _                   |     | 280              |                     |
| Hybrid                                      | 402              |                     | _   | 123              |                     |
| Vanpools                                    | 480              | _                   |     | 88               |                     |
| Violators                                   | 760              |                     | _   | 181              |                     |
| TOTAL                                       | 12653            | 29257               | (7) | 3440             | 7956                |
| RATES                                       |                  |                     |     |                  |                     |
| HOV Lane<br>Occupancy Rate                  | 3.7              | persons/veh         |     | 3.7              | persons/veh         |
| Mixed Flow <sup>(7)</sup><br>Occupancy Rate | 1.2              | persons/veh         |     | 1.2              | persons/veh         |
| Violation rate (3) (HOV Lane)               | 13.2             | %                   |     | 11.3             | %                   |

**NOTES:** (1) 3 or more persons per vehicle.

- (2) 2 seater vehicles with 2 persons.
- (3) Violation rate = no. of violators in HOV lane x 100% Total no. of vehicles in HOV lane

- (4) Assumed PM bus occupancy = 16 persons/vehicle.
- (5) HOV lanes in operation from 3:00 to 7:00 P.M.
- (6) Observations conducted 5/13/10 at the SFOBB Toll Plaza.
- (7) Data from Toll Plaza Hourly Vehicle Registration Report.

San Francisco-Oakland Bay Bridge

### **Violation History**

#### Westbound

|             |                  |                         |                   | Ву             | Lane           |             |             | Ву          | Time        |              |
|-------------|------------------|-------------------------|-------------------|----------------|----------------|-------------|-------------|-------------|-------------|--------------|
|             | DATE             | TOTAL<br>HOVL<br>VOLUME | VIOLATION<br>RATE | Lanes<br>1 & 2 | Lanes<br>21&22 | 5 - 6<br>AM | 6 - 7<br>AM | 7 - 8<br>AM | 8 - 9<br>AM | 9 - 10<br>AM |
| A.M.        | Thu May 13, 2010 | 11004                   | 13.2%             | 10.9%          | 15.5%          |             | 20.5%       | 12.5%       | 10.1%       | 9.8%         |
| <b>PEAK</b> | Tue Dec 1, 2009  | 10677                   | 11.7%             | 8.7%           | 14.8%          |             | 12.0%       | 12.8%       | 9.9%        | 12.0%        |
|             | Wed May 28, 2008 | 10851                   | 9.0%              | 6.7%           | 11.3%          |             | 13.8%       | 7.8%        | 6.0%        | 7.9%         |
|             | Tue May 22, 2007 | 11427                   | 6.5%              | 8.0%           | 4.9%           |             | 10.0%       | 6.9%        | 4.0%        | 5.2%         |
|             | Wed May 31, 2006 | 10394                   | 9.7%              | 10.3%          | 9.1%           |             | 18.4%       | 6.8%        | 6.0%        | 5.9%         |
|             | Tue Nov 15, 2005 | 10261                   | 9.9%              | 8.7%           | 11.2%          |             | 13.3%       | 8.1%        | 5.8%        | 16.1%        |
|             | Wed Nov 3, 2004  | 10917                   | 10.0%             | 8.2%           | 11.7%          | 21.4%       | 12.5%       | 7.9%        | 6.3%        | 9.0%         |
|             | Wed May 28, 2003 | 10803                   | 8.2%              | 7.4%           | 9.0%           | 15.5%       | 8.4%        | 7.0%        | 6.1%        | 9.6%         |
|             | Thu May 9, 2002  | 11481                   | 9.5%              | 4.9%           | 13.8%          | 22.4%       | 12.0%       | 7.5%        | 3.8%        | 10.5%        |
|             | Wed May 23, 2001 | 13100                   | 10.0%             | 7.2%           | 12.8%          | 22.3%       | 12.2%       | 5.8%        | 6.9%        | 10.4%        |
|             | Thu Nov 9, 2000  | 12991                   | 14.7%             | 8.9%           | 19.9%          | 37.8%       | 16.9%       | 10.4%       | 6.4%        | 14.3%        |
|             | Thu Oct 14, 1999 | 11644                   | 19.5%             | 9.8%           | 29.7%          | 60.1%       | 32.6%       | 7.7%        | 6.9%        | 11.5%        |
|             | Tue Apr 21, 1998 | 9696                    | 10.6%             | 7.6%           | 12.5%          | 14.2%       | 22.7%       | 6.4%        | 4.1%        | 9.2%         |
|             |                  |                         |                   |                |                |             | 3 - 4<br>PM | 4 - 5<br>PM | 5 - 6<br>PM | 6 - 7<br>PM  |
| P.M.        | Thu May 13, 2010 | 3438                    | 13.2%             | 14.7%          | 11.8%          |             | 18.6%       | 13.0%       | 11.3%       | 10.6%        |
| <b>PEAK</b> | Tue Sep 29, 2009 | 3336                    | 10.8%             | 17.0%          | 4.1%           |             | 13.9%       | 8.9%        | 10.4%       | 10.3%        |
|             | Thu May 1, 2008  | 3330                    | 9.9%              | 7.8%           | 12.4%          |             | 11.8%       | 9.4%        | 9.6%        | 8.9%         |
|             | Wed May 23, 2007 | 3541                    | 7.8%              | 5.9%           | 10.4%          |             | 9.4%        | 7.0%        | 7.3%        | 7.9%         |
|             | Thu Oct 19, 2006 | 3645                    | 14.9%             | 11.0%          | 19.0%          |             | 15.2%       | 14.8%       | 14.3%       | 15.5%        |
|             | Tue Oct 25, 2005 | 3106                    | 16.3%             | 18.5%          | 13.5%          |             | 20.2%       | 13.5%       | 13.9%       | 18.5%        |
|             | Thu Oct 28, 2004 | 3290                    | 9.1%              | 10.6%          | 7.0%           |             | 10.9%       | 7.9%        | 8.1%        | 9.6%         |
|             | Tue May 27, 2003 | 3891                    | 14.7%             | 17.2%          | 11.8%          |             | 24.4%       | 11.7%       | 9.3%        | 15.7%        |

12.7%

10.6%

17.0%

15.0%

8.8%

33.3%

16.5%

12.6%

32.0%

11.6%

7.6%

24.4%

10.9%

9.3%

21.1%

15.8%

0.101

25.3%

**NOTES:** (a) Two-seater vehicles with 2 persons allowed in HOVL effective October 1, 1995.

11.7%

9.8%

25.6%

3327

3602

3673

Wed Sep 18, 2002

Wed Oct 3, 2001

Thu Oct 19, 2000

<sup>(</sup>b) Hours of operation were extended from 3-6 PM to 3-7 PM on February 2, 1998.

<sup>(</sup>c) Hours of operation from 5:00 to 10:00 AM and 3:00 to 7:00 PM.

### Westbound - P.M.

### **HOV FLYOVER RAMP**

Powell Street to SFOBB

Typical data for 2010

(5)

#### PEAK PERIOD (4)

#### **PEAK HOUR**

3:00 - 7:00 PM

6:00 - 7:00 PM

| VEHICLES                                    | HOV Lane | SOV Lane    | HOV Lane | SOV Lane   |
|---|----------|-------------|----------|------------|
| Motorcycles                                 | 76       |             | 24       | _          |
| Buses                                       | 148      |             | 25       |            |
| Carpool (1)                                 | 749      |             | 212      |            |
| 2 - seaters (2)                             | 213      |             | 68       |            |
| Hybrid                                      | 122      |             | 32       |            |
| Vanpools                                    | 17       |             | 3        |            |
| Violators                                   | 320      |             | 90       |            |
| TOTAL                                       | 1645     | N/A         | 454      | N/A        |
| PERSONS                                     | HOV Lane | SOV Lane    | HOV Lane | SOV Lane   |
| Motorcycles                                 | 76       |             | 24       | _          |
| Buses                                       | 2368     |             | 400      |            |
| Carpool (1)                                 | 2322     |             | 657      |            |
| 2 - seaters (2)                             | 426      |             | 136      |            |
| Hybrid                                      | 122      |             | 32       |            |
| Vanpools                                    | 136      |             | 24       |            |
| Violators                                   | 279      |             | 59       |            |
| TOTAL                                       | 5729     | N/A         | 1332     | N/A        |
| RATES                                       |          |             |          |            |
| HOV Lane occupancy rate                     | 3.5      | persons/veh | 2.9      | ersons/veh |
| Violation rate <sup>(3)</sup><br>(HOV Lane) | 19.5     | %           | 19.8     | 3 %        |

- **NOTES:** (1) 3 or more persons per vehicle.
  - (2) 2 seater vehicles with 2 persons.
  - (3) Violation rate =  $\underline{no. of violators in HOV lane \ x \ 100\%}$

Total no. of vehicles in HOV lane

- (4) HOV lane in operation from 3:00 to 7:00 PM.
- (5) Observations conducted 5/13/10 at the downstream touchdown of the flyover.

#### **HOV FLYOVER RAMP**

Powell Street to SFOBB

# Violation History Westbound

**VIOLATION** 

#### A.M. PEAK

| DATE             | MONITORED       | VOLUME | RATE  |
|------------------|-----------------|--------|-------|
| Year 2010        | -               | -      | -     |
| Tue Jun 9, 2009  | 6:00 - 10:00 AM | 4588   | 13.7% |
| Thu Oct 9, 2008  | 6:00 - 10:00 AM | 4461   | 7.2%  |
| Thu May 24, 2007 | 6:00 - 10:00 AM | 4328   | 11.3% |
| Thu Jun 8, 2006  | 5:00 - 10:00 AM | 5462   | 16.3% |
| Thu Jun 2, 2005  | 6:00 - 10:00 AM | 4848   | 13.3% |
| Tue Dec 14, 2004 | 6:00 - 10:00 AM | 2937   | 16.3% |
| Wed Nov 5, 2003  | 6:00 - 10:00 AM | 4286   | 13.9% |
| Wed May 29, 2002 | 6:00 - 10:00 AM | 4644   | 2.9%  |
| Wed Mar 28, 2001 | 5:00 - 10:00 AM | 5108   | 18.6% |
| Wed May 17, 2000 | 5:00 - 10:00 AM | 5274   | 16.5% |

**PERIOD** 

**TOTAL HOVL** 

#### P.M. PEAK

| Thu May 13, 2010 | 3:00 - 7:00 PM | 1645 | 19.5% |
|------------------|----------------|------|-------|
| Wed Sep 30, 2009 | 3:00 - 7:00 PM | 1589 | 11.5% |
| Wed Oct 8, 2008  | 3:00 - 7:00 PM | 1367 | 13.6% |
| Thu Sep 27, 2007 | 3:00 - 7:00 PM | 1490 | 10.9% |
| Wed Oct 25, 2006 | 3:00 - 7:00 PM | 1227 | 16.2% |
| Wed May 18, 2005 | 3:00 - 7:00 PM | 1209 | 20.6% |
| Wed Nov 3, 2004  | 3:00 - 6:00 PM | 953  | 17.5% |
| Tue Nov 4, 2003  | 3:00 - 6:00 PM | 839  | 26.8% |
| Tue Sep 17, 2002 | 3:00 - 7:00 PM | 1123 | 20.4% |
| Wed Oct 3, 2001  | 3:00 - 7:00 PM | 1045 | 26.1% |
| Tue Dec 12, 2000 | 3:00 - 5:00 PM | 490  | 16.1% |
|                  |                |      |       |

#### NOTES:

- (a) Morning period of operation from 5:00 to 10:00 AM
- (b) Evening period of operation from 3:00 to 7:00 PM.

### Westbound - A.M.

Contra Costa County Line to Powell Street

Typical data for 2010 (5)

#### **PEAK PERIOD**

#### **PEAK HOUR**

6:00 - 10:00 AM

7:00 - 8:00 AM

| VEHICLES |                 | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|----------|-----------------|----------|---------------------|----------|---------------------|
|          | Motorcycles     | 134      | 29                  | 34       | 11                  |
|          | Buses           | 85       | 13                  | 24       | 3                   |
|          | Carpools (1)    | 4341     | 591                 | 1438     | 232                 |
|          | Hybrid          | 586      | 95                  | 149      | 20                  |
|          | Vanpools _      | 68       | 29                  | 10       | 14                  |
|          | Single Occ. (2) | _        | 24422               |          | 6226                |
|          | Violators       | 478      |                     | 125      |                     |
|          | TOTAL           | 5692     | 25179               | 1780     | 6506                |
| PERSONS  |                 | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |

| PERSONS |                 | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed F<br>Lane |
|---------|-----------------|----------|---------------------|----------|-----------------|
|         | Motorcycles     | 134      | 29                  | 34       | 11              |
|         | Buses           | 2975     | 455                 | 840      | 105             |
|         | Carpools (1)    | 12274    | 1570                | 4108     | 632             |
|         | Hybrid          | 586      | 95                  | 149      | 20              |
|         | Vanpools        | 680      | 290                 | 100      | 140             |
|         | Single Occ. (2) |          | 26642               |          | 6847            |
|         | Violators       | 622      | <u> </u>            | 184      | _               |
|         | TOTAL           | 17271    | 29081               | 5415     | 7755            |

#### **RATES**

| HOV Lane occupancy rate                     | 3.0 persons/veh | 3.0 persons/veh |
|---|-----------------|-----------------|
| Mixed Flow occupancy rate                   | 1.2 persons/veh | 1.2 persons/veh |
| Overall occupancy (incl. buses)             | 1.5 persons/veh | 1.6 persons/veh |
| Violation rate <sup>(3)</sup><br>(HOV Lane) | 8.4 %           | 7.0 %           |

- **NOTES:** (1) 3 or more persons per vehicle & 2 seater vehicles with 2 persons.
  - (2) Mixed flow lanes only.
  - (3) Violation rate = no. of violators in HOV lane x 100%

Total no. of vehicles in HOV lane

- (4) HOV lane in operation from 5:00 to 10:00 A.M.
- (5) Observations conducted 5/18/10 at Ashby Avenue Interchange.

### Eastbound - P.M.

I-880 Viaduct to Contra Costa County Line

Typical data for 2010

(5)

#### PEAK PERIOD (4)

#### 7 00 **DM**

# **PEAK HOUR** 5:00 - 6:00 PM

3:00 - 7:00 PM

| HOV Lane | Mixed Flow<br>Lanes |
|----------|---------------------|
| 77       | 3                   |
| 29       | 0                   |

148

| VEHICLES         | HOV Lane | Mixed Flow<br>Lanes |
|------------------|----------|---------------------|
| Motorcycles      | 232      | 38                  |
| Buses            | 74       | 11                  |
| Carpools (1)     | 3577     | 664                 |
| Hybrid           | 488      | 151                 |
| Vanpools         | 94       | 25                  |
| 1 and 2 Occ. (2) | _        | 25011               |
| Violators        | 725      |                     |
| TOTAL            | 5190     | 25900               |

| 171  | 43   |
|------|------|
| 23   | 10   |
| _    | 6569 |
| 174  | _    |
| 1566 | 6773 |

1092

| PERSONS          | HOV Lane | Mixed Flow<br>Lanes |
|------------------|----------|---------------------|
| Motorcycles      | 232      | 38                  |
| Buses            | 2590     | 385                 |
| Carpools (1)     | 9240     | 1790                |
| Hybrid           | 488      | 151                 |
| Vanpools         | 940      | 250                 |
| 1 and 2 Occ. (2) | _        | 27987               |
| Violators        | 1233     | _                   |

**TOTAL** 

| HOV Lane | Mixed Flow<br>Lanes |
|----------|---------------------|
| 77       | 3                   |
| 1015     | 0                   |
| 2788     | 399                 |
| 171      | 43                  |
| 230      | 100                 |
| _        | 7300                |
| 314      | <u> </u>            |
| 4595     | 7845                |

#### **RATES**

| HOV Lane occupancy rate                     | 2.8 persons/veh | 2.9 persons/veh |
|---|-----------------|-----------------|
| Mixed Flow occupancy rate                   | 1.2 persons/veh | 1.2 persons/veh |
| Overall occupancy (incl. buses)             | 1.5 persons/veh | 1.5 persons/veh |
| Violation rate <sup>(3)</sup><br>(HOV Lane) | 14.0 %          | 11.1 %          |

30601

**NOTES:** (1) 3 or more persons per vehicle & 2 - seater vehicles with 2 persons.

(2) Mixed flow lanes only.

14723

(3) Violation rate = no. of violators in HOV lane x 100%

Total no. of vehicles in HOV lane

- (4) HOV lane in operation from 3:00 to 7:00 P.M.
- (5) Observations conducted 5/11/10 at Ashby Avenue Interchange.

### **Violation History**

Contra Costa County Line to Powell Street

#### Westbound

**VIOLATION** 

#### A.M. PEAK

| DATE             | MONITORED       | VOLUME | RATE  |
|------------------|-----------------|--------|-------|
| Tue May 18, 2010 | 6:00 - 10:00 AM | 5692   | 8.4%  |
| Wed May 27, 2009 | 6:00 - 10:00 AM | 5699   | 6.3%  |
| Tue Jun 3, 2008  | 6:00 - 10:00 AM | 5351   | 8.4%  |
| Wed May 16, 2007 | 6:00 - 10:00 AM | 5709   | 11.1% |
| Thu May 25, 2006 | 6:00 - 10:00 AM | 5114   | 9.2%  |
| Wed Nov 16, 2005 | 7:00 - 10:00 AM | 3907   | 9.0%  |
| Wed Nov 17, 2004 | 7:00 - 10:00 AM | 3734   | 7.9%  |
| Tue Jun 10, 2003 | 6:00 - 10:00 AM | 5181   | 4.4%  |
| Wed May 8, 2002  | 6:00 - 10:00 AM | 5414   | 8.7%  |
| Wed May 16, 2001 | 6:00 - 10:00 AM | 5289   | 13.8% |
| Thu Oct 5, 2000  | 7:00 - 10:00 AM | 3184   | 18.5% |

PERIOD

TOTAL HOVL

#### P.M. PEAK

| Year 2010        | -              | -    | -     |
|------------------|----------------|------|-------|
| Year 2009        | -              | -    | -     |
| Year 2008        | -              | -    | -     |
| Year 2007        | -              | -    | -     |
| Year 2006        | -              | -    | -     |
| Year 2005        | -              | -    | -     |
| Year 2004        | -              | -    | -     |
| Year 2003        | -              | -    | -     |
| Thu May 9, 2002  | 3:00 - 7:00 PM | 3102 | 18.9% |
| Thu May 10, 2001 | 3:00 - 7:00 PM | 1936 | 24.4% |
| Thu Jun 1, 2000  | 3:00 - 7:00 PM | 2593 | 25.9% |
|                  |                |      |       |

- **NOTES:** (a) Morning period of operation from 5:00 to 10:00 AM
  - (b) Evening period of operation from 3:00 to 7:00 PM.
  - (c) Data was not collected in 2010 for off-peak directions.

### **Violation History**

I-880 Viaduct to Contra Costa County Line

#### **Eastbound**

**VIOLATION** 

#### A.M. PEAK

| DATE             | MONITORED       | VOLUME | RATE  |
|------------------|-----------------|--------|-------|
| Year 2010        | -               | -      | -     |
| Year 2009        | -               | -      | -     |
| Year 2008        | -               | -      | -     |
| Year 2007        | -               | -      | -     |
| Year 2006        | -               | -      | -     |
| Year 2005        | -               | -      | -     |
| Year 2004        | -               | -      | -     |
| Year 2003        | -               | -      | -     |
| Wed Jun 5, 2002  | 6:00 - 10:00 PM | 677    | 17.6% |
| Wed May 30, 2001 | 6:00 - 10:00 PM | 606    | 21.5% |
| Tue Dec 19, 2000 | 7:00 - 10:00 PM | 221    | 7.7%  |
|                  |                 |        |       |

PERIOD

TOTAL HOVL

#### P.M. PEAK

| Tue May 11, 2010 | 3:00 - 7:00 PM | 5190 | 14.0% |
|------------------|----------------|------|-------|
| Tue Oct 6, 2009  | 3:00 - 7:00 PM | 3967 | 4.2%  |
| Wed Oct 22, 2008 | 3:00 - 7:00 PM | 4809 | 8.8%  |
| Wed May 16, 2007 | 3:00 - 7:00 PM | 4709 | 7.9%  |
| Wed May 10, 2006 | 3:00 - 7:00 PM | 5415 | 10.3% |
| Tue May 17, 2005 | 3:00 - 7:00 PM | 5048 | 14.7% |
| Wed Nov 17, 2004 | 3:00 - 5:00 PM | 1995 | 21.5% |
| Thu May 29, 2003 | 3:00 - 7:00 PM | 4225 | 9.3%  |
| Thu May 16, 2002 | 3:00 - 7:00 PM | 4535 | 2.7%  |
| Thu Sep 27, 2001 | 3:00 - 7:00 PM | 4655 | 6.5%  |
| Thu Sep 14, 2000 | 3:00 - 7:00 PM | 4415 | 3.4%  |
|                  |                |      |       |

- **NOTES:** (a) Morning period of operation from 5:00 to 10:00 AM
  - (b) Evening period of operation from 3:00 to 7:00 PM
  - (c) Data was not collected in 2010 for off- peak direction

### Westbound - A.M.

Route I-880 to Dumbarton Bridge Toll Plaza

Typical data for 2010 (5)

#### PEAK PERIOD (4)

### **PEAK HOUR**

6:00 - 9:00 AM

8:00 - 9:00 AM

| VEHICLES               | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 54       | 4                   | 16       | 2                   |
| Buses                  | 28       | 4                   | 10       | 4                   |
| Carpools (1)           | 2490     | 58                  | 823      | 10                  |
| Vanpools               | 8        | 23                  | 4        | 5                   |
| Hybrid/Single Occ. (2) | 200      | 8690                | 91       | 3589                |
| Violators              | 10       |                     | 0        |                     |
| TOTAL                  | 2790     | 8779                | 944      | 3610                |

| PERSONS                | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 54       | 4                   | 16       | 2                   |
| Buses                  | 980      | 140                 | 350      | 140                 |
| Carpools (1)           | 5463     | 118                 | 1854     | 21                  |
| Vanpools               | 80       | 230                 | 40       | 50                  |
| Hybrid/Single Occ. (2) | 200      | 8690                | 91       | 3589                |
| Violators              | 10       | _                   | 0        | _                   |
| TOTAL                  | 6787     | 9182                | 2351     | 3802                |

#### **RATES**

| HOV Lane occupancy rate         | 2.4 persons/veh | 2.5 persons/veh |
|---------------------------------|-----------------|-----------------|
| Mixed Flow occupancy rate       | 1.0 persons/veh | 1.1 persons/veh |
| Overall occupancy (incl. buses) | 1.4 persons/veh | 1.4 persons/veh |
| Violation rate (HOV Lane)       | 0.4 %           | 0.0 %           |

**NOTES:** (1) Two or more persons per vehicle.

- (2) Hybrid HOV lane only/Single and two Occupancy mixed flow lanes only.
- (3) Violation rate = no. of violators in HOV lane x 100%

  Total no. of vehicles in HOV lane
- (4) HOV lane in operation from 5:00 to 10:00 A.M.
- (5) Observations conducted 03/24/10 at E/O Dumbarton Bridge Toll Plaza.

### Westbound - P.M.

Route I-880 to Dumbarton Bridge Toll Plaza

Typical data for 2010 (5)

| PE | AK | <b>PER</b> | IOD | (4) |
|----|----|------------|-----|-----|
|----|----|------------|-----|-----|

#### **PEAK HOUR**

3:00 - 6:00 PM

5:00 - 6:00 PM

| VEHICLES               | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 7        | 6                   | 3        | 1                   |
| Buses                  | 18       | 1                   | 4        | 1                   |
| Carpools (1)           | 826      | 140                 | 263      | 41                  |
| Vanpools               | 14       | 1                   | 3        | 1                   |
| Hybrid/Single Occ. (2) | 16       | 2681                | 10       | 935                 |
| Violators              | 7        |                     | 7        | _                   |
| TOTAL                  | 888      | 2829                | 290      | 979                 |

| PERSONS                | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 7        | 6                   | 3        | 1                   |
| Buses                  | 630      | 35                  | 140      | 35                  |
| Carpools (1)           | 1769     | 287                 | 569      | 86                  |
| Vanpools _             | 140      | 10                  | 30       | 10                  |
| Hybrid/Single Occ. (2) | 16       | 2681                | 10       | 935                 |
| Violators              | 7        | _                   | 7        | _                   |
| TOTAL                  | 2569     | 3019                | 759      | 1067                |

#### **RATES**

| HOV Lane occupancy rate                     | 2.9 persons/veh | 2.6 persons/veh |
|---|-----------------|-----------------|
| Mixed Flow occupancy rate                   | 1.1 persons/veh | 1.1 persons/veh |
| Overall occupancy (incl. buses)             | 1.5 persons/veh | 1.4 persons/veh |
| Violation rate <sup>(3)</sup><br>(HOV Lane) | 0.8 %           | 2.4 %           |

**NOTES:** (1) Two or more persons per vehicle.

- (2) Hybrid HOV lane only/Single and two Occupancy mixed flow lanes only.
- (3) Violation rate = no. of violators in HOV lane x 100% Total no. of vehicles in HOV lane
- (4) HOV lane in operation from 3:00 to 6:00 P.M.
- (5) Observations conducted 03/24/10 at East of Dumbarton Bridge Toll Plaza.

I-880 to Dumbarton Bridge Toll Plaza

### **Violation History**

#### Westbound

**VIOLATION** 

#### A.M. PEAK

| DATE             | MONITORED       | VOLUME | RATE |
|------------------|-----------------|--------|------|
| Wed Mar 24, 2010 | 6:00 - 9:00 AM  | 2790   | 0.4% |
| Thu Apr 30, 2009 | 6:00 - 9:00 AM  | 2741   | 0.0% |
| Thu Oct 23, 2008 | 6:00 - 9:00 AM  | 3465   | 0.0% |
| Wed Nov 7, 2007  | 6:00 - 9:00 AM  | 3114   | 0.8% |
| Wed Sep 27, 2006 | 6:00 - 9:00 AM  | 3045   | 0.6% |
| Thu Oct 20, 2005 | 6:00 - 9:00 AM  | 2769   | 1.4% |
| Thu Oct 14, 2004 | 6:00 - 9:00 AM  | 2495   | 0.6% |
| Thu Jun 5, 2003  | 6:00 - 9:00 AM  | 2496   | 0.9% |
| Tue May 14, 2002 | 6:00 - 9:00 AM  | 3044   | 3.5% |
| Tue Apr 10, 2001 | 6:00 - 10:00 AM | 4480   | 3.1% |
| Thu Oct 19, 2000 | 6:00 - 9:00 AM  | 4106   | 3.5% |
|                  |                 |        |      |

PERIOD

TOTAL HOVL

#### P.M. PEAK

| Wed Mar 24, 2010 | 3:00 - 6:00 PM | 888  | 0.8% |
|------------------|----------------|------|------|
| Thu Apr 30, 2009 | 3:00 - 6:00 PM | 1052 | 0.5% |
| Thu May 1, 2008  | 3:00 - 6:00 PM | 1045 | 1.1% |
| Wed Apr 4, 2007  | 3:00 - 6:00 PM | 1148 | 3.7% |
| Tue Sep 26, 2006 | 3:00 - 6:00 PM | 1035 | 1.0% |
| Tue May 10, 2005 | 3:00 - 6:00 PM | 1032 | 1.1% |
| Year 2004        | -              | -    | -    |
| Thu May 8, 2003  | 3:00 - 6:00 PM | 995  | 1.1% |
| Wed Jun 12, 2002 | 3:00 - 6:00 PM | 959  | 1.8% |
| Tue Mar 20, 2001 | 3:00 - 6:00 PM | 919  | 2.2% |
| Thu Oct 19, 2000 | 3:00 - 6:00 PM | 849  | 3.1% |
|                  |                |      |      |

**NOTES:** (a) Morning period of operation from 5:00 to 10:00 AM.

<sup>(</sup>b) Evening period of operation from 3:00 to 6:00 PM.

<sup>(</sup>c) Data was not collected in 2004 for off-peak direction

### Westbound - A.M.

Hesperian Boulevard to San Mateo Bridge Toll Plaza

Typical data for 2010 (5)

#### PEAK PERIOD (4)

#### **PEAK HOUR**

6:00 - 9:00 AM

7:00 - 8:00 AM

| VEHICLES               | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 70       | 14                  | 27       | 6                   |
| Buses                  | 12       | 1                   | 6        | 1                   |
| Carpools (1)           | 2031     | 117                 | 958      | 37                  |
| Vanpools               | 19       | 3                   | 13       | 0                   |
| Hybrid/Single Occ. (2) | 95       | 9974                | 45       | 3582                |
| Violators              | 7        |                     | 7        |                     |
| TOTAL                  | 2234     | 10109               | 1056     | 3626                |

| PERSONS                | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 70       | 14                  | 27       | 6                   |
| Buses                  | 420      | 35                  | 210      | 35                  |
| Carpools (1)           | 4244     | 242                 | 2010     | 78                  |
| Vanpools               | 190      | 30                  | 130      | 0                   |
| Hybrid/Single Occ. (2) | 95       | 9974                | 45       | 3582                |
| Violators              | 7        |                     | 7        | _                   |
| TOTAL                  | 5026     | 10295               | 2429     | 3701                |

#### **RATES**

| HOV Lane occupancy rate                     | 2.2 persons/veh | 2.3 persons/veh |
|---|-----------------|-----------------|
| Mixed Flow occupancy rate                   | 1.0 persons/veh | 1.0 persons/veh |
| Overall occupancy (incl. buses)             | 1.2 persons/veh | 1.3 persons/veh |
| Violation rate <sup>(3)</sup><br>(HOV Lane) | 0.3 %           | 0.7 %           |

**NOTES:** (1) Two or more persons per vehicle.

- (2) Hybrid HOV lane only/Single and two Occupancy mixed flow lanes only.
- (3) Violation rate = no. of violators in HOV lane x 100% Total no. of vehicles in HOV lane

- (4) HOV lane in operation from 5:00 to 10:00 A.M.
- (5) Observations conducted 03/23/10 at E/O San Mateo Bridge Toll Plaza

### Westbound - P.M.

Hesperian Boulevard to San Mateo Bridge Toll Plaza

Typical data for 2010 (5)

| PEAK | PERIOD | (4) |
|------|--------|-----|
|------|--------|-----|

#### **PEAK HOUR**

3:00 - 6:00 PM

5:00 - 6:00 PM

| VEHICLES               | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 3        | 1                   | 1        | 1                   |
| Buses                  | 10       | 2                   | 3        | 0                   |
| Carpools (1)           | 1069     | 421                 | 395      | 150                 |
| Vanpools               | 8        | 20                  | 5        | 1                   |
| Hybrid/Single Occ. (2) | 35       | 5365                | 14       | 2038                |
| Violators              | 10       |                     | 4        |                     |
| TOTAL                  | 1135     | 5809                | 422      | 2190                |

| PERSONS                | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 3        | 1                   | 1        | 1                   |
| Buses                  | 350      | 70                  | 105      | 0                   |
| Carpools (1)           | 2218     | 876                 | 815      | 318                 |
| Vanpools               | 80       | 200                 | 50       | 10                  |
| Hybrid/Single Occ. (2) | 35       | 5365                | 14       | 2038                |
| Violators              | 10       |                     | 4        |                     |
| TOTAL                  | 2696     | 6512                | 989      | 2367                |

#### **RATES**

| HOV Lane occupancy rate                     | 2.4 persons/veh | 2.3 persons/veh |
|---|-----------------|-----------------|
| Mixed Flow occupancy rate                   | 1.1 persons/veh | 1.1 persons/veh |
| Overall occupancy (incl. buses)             | 1.3 persons/veh | 1.3 persons/veh |
| Violation rate <sup>(3)</sup><br>(HOV Lane) | 0.9 %           | 0.9 %           |

**NOTES:** (1) Two or more persons per vehicle.

- (2) Hybrid HOV lane only/Single and two Occupancy mixed flow lanes only.
- (3) Violation rate = no. of violators in HOV lane x 100% Total no. of vehicles in HOV lane

- (4) HOV lane in operation from 3:00 to 6:00 P.M.
- (5) Observations conducted 04/27/10 at E/O San Mateo Bridge Toll Plaza.

### **Violation History**

Hesperian Blvd. to West of San Mateo - Hayward Bridge Toll Plaza

#### Westbound

#### A.M. PEAK

| DATE             | PERIOD<br>MONITORED | TOTAL HOVL<br>VOLUME | VIOLATION<br>RATE |
|------------------|---------------------|----------------------|-------------------|
| Tue Apr 27, 2010 | 6:00 - 9:00 AM      | 2234                 | 0.3%              |
| Wed May 6, 2009  | 6:00 - 9:00 AM      | 2524                 | 1.0%              |
| Thu Nov 20, 2008 | 6:00 - 9:00 AM      | 2799                 | 0.0%              |
| Thu Mar 15, 2007 | 6:00 - 9:00 AM      | 2747                 | 1.6%              |
| Wed Mar 8, 2006  | 6:00 - 9:00 AM      | 2452                 | 1.3%              |
| Tue May 24, 2005 | 6:00 - 9:00 AM      | 2448                 | 1.1%              |
| Wed Oct 13, 2004 | 6:00 - 9:00 AM      | 2218                 | 2.3%              |
| Thu May 29, 2003 | 6:00 - 9:00 AM      | 2449                 | 1.3%              |
| Tue Apr 30, 2002 | 6:00 - 9:00 AM      | 1834                 | 3.9%              |
| Thu Sep 20, 2001 | 6:00 - 9:00 AM      | 2075                 | 8.1%              |
| Tue Oct 24, 2000 | 6:00 - 9:00 AM      | 2480                 | 8.2%              |
|                  |                     |                      |                   |

#### P.M. PEAK

| Tue Apr 27, 2010 | 3:00 - 6:00 PM | 1135 | 0.9% |
|------------------|----------------|------|------|
| Tue Apr 21, 2009 | 3:00 - 6:00 PM | 1384 | 1.5% |
| Thu May 15, 2008 | 3:00 - 6:00 PM | 1479 | 1.0% |
| Thu Mar 15, 2007 | 3:00 - 6:00 PM | 1602 | 0.7% |
| Thu Sep 21, 2006 | 3:00 - 6:00 PM | 1518 | 2.0% |
| Tue Sep 13, 2005 | 3:00 - 6:00 PM | 1318 | 0.5% |
| Year 2004        | -              | -    | -    |
| Wed Apr 9, 2003  | 3:00 - 6:00 PM | 1240 | 1.5% |
| Tue Jun 11, 2002 | 3:00 - 6:00 PM | 1275 | 4.4% |
| Wed Oct 3, 2001  | 3:00 - 6:00 PM | 1177 | 5.4% |
| Thu Apr 13, 2000 | 3:00 - 6:00 PM | 1243 | 1.4% |
|                  |                |      |      |

**NOTES:** (a) Morning period of operation from 5:00 to 10:00 AM.

- (b) Evening period of operation from 3:00 to 6:00 PM.
- (c) Data was not collected in 2004 for off-peak direction

### Eastbound - P.M.

Hacienda Dr. to Livermore Ave

Typical data for 2010 (5)

| VEHICLES         HOV Lane         Mixed Flow Lanes         HOV Lane         Mixed Flow Lanes           Motorcycles         78         23         29         5           Buses         8         11         5         5           Carpools (1)         1875         571         762         267           Vanpools         24         40         13         21           Hybrid/Single Occ. (2)         33         10985         21         4345           Violators         25         —         10         —           TOTAL         2043         11630         830         4643           PERSONS         HOV Lane         Mixed Flow Lanes         HOV Lane         Mixed Flow Lanes           Buses         280         385         175         175           Carpools (1)         3841         1248         1570         586           Vanpools         240         400         130         210           Hybrid/Single Occ. (2)         33         10985         21         4345           Violators         25         —         10         —           TOTAL         4497         13041         1935         5321  |                        | <b>PEAK PERIOD</b> (4)<br>3:00 - 6:00 PM |             |          | <b>PEAK HOUR</b><br>3:00 - 4:00 PM |             |
|--|------------------------|--|-------------|----------|------------------------------------|-------------|
| Buses  | VEHICLES               | HOV Lane                                 |             | <u> </u> | HOV Lane                           |             |
| Carpools (1)   | Motorcycles            | 78                                       | 23          |          | 29                                 | 5           |
| Vanpools         24         40         13         21           Hybrid/Single Occ. (2)         33         10985         21         4345           Violators         25         —         10         —           TOTAL         2043         11630         830         4643           PERSONS         HOV Lane         Mixed Flow Lanes         HOV Lane         Mixed Flow Lanes           Motorcycles         78         23         29         5           Buses         280         385         175         175           Carpools (1)         3841         1248         1570         586           Vanpools         240         400         130         210           Hybrid/Single Occ. (2)         33         10985         21         4345           Violators         25         —         10         —           TOTAL         4497         13041         1935         5321           RATES           HOV Lane occupancy rate         2.2 persons/veh         2.3 persons/veh           Mixed Flow occupancy (incl. buses)         1.1 persons/veh         1.1 persons/veh           Overall occupancy (incl. buses)         1.2 %         1.2 % <td>Buses</td> <td>8</td> <td>11</td> <td></td> <td>5</td> <td>5</td>   | Buses                  | 8  | 11          |          | 5                                  | 5           |
| Hybrid/Single Occ. (2)   33   10985   21   4345     Violators   25   | Carpools (1)           | 1875                                     | 571         |          | 762                                | 267         |
| Nicelators   25  | Vanpools               | 24                                       | 40          |          | 13                                 | 21          |
| PERSONS         HOV Lane         Mixed Flow Lanes         HOV Lane         Mixed Flow Lanes           Motorcycles         78         23         29         5           Buses         280         385         175         175           Carpools (1)         3841         1248         1570         586           Vanpools         240         400         130         210           Hybrid/Single Occ. (2)         33         10985         21         4345           Violators         25         —         10         —           TOTAL         4497         13041         1935         5321           RATES           HOV Lane occupancy rate         2.2 persons/veh         2.3 persons/veh           Mixed Flow occupancy rate         1.1 persons/veh         1.1 persons/veh           Overall occupancy (incl. buses)         1.3 %         1.3 %           Violation rate         1.2 %         1.2 %  | Hybrid/Single Occ. (2) | 33                                       | 10985       |          | 21                                 | 4345        |
| PERSONS         HOV Lane         Mixed Flow Lanes         HOV Lane         Mixed Flow Lanes           Motorcycles         78         23         29         5           Buses         280         385         175         175           Carpools (1)         3841         1248         1570         586           Vanpools         240         400         130         210           Hybrid/Single Occ. (2)         33         10985         21         4345           Violators         25         —         10         —           TOTAL         4497         13041         1935         5321           RATES           HOV Lane occupancy rate         2.2 persons/veh         2.3 persons/veh           Mixed Flow occupancy rate         1.1 persons/veh         1.1 persons/veh           Overall occupancy (incl. buses)         1.3 %         1.3 %           Violation rate         1.2 %         1.2 %  | Violators              | 25                                       |             |          | 10                                 |             |
| PERSONS         HOV Lane         Lanes         HOV Lane         Lanes           Motorcycles         78         23         29         5           Buses         280         385         175         175           Carpools (1)         3841         1248         1570         586           Vanpools         240         400         130         210           Hybrid/Single Occ. (2)         33         10985         21         4345           Violators         25         —         10         —           TOTAL         4497         13041         1935         5321           RATES           HOV Lane occupancy rate         2.2 persons/veh         2.3 persons/veh           Mixed Flow occupancy rate         1.1 persons/veh         1.1 persons/veh           Overall occupancy (incl. buses)         1.3 %         1.3 %           Violation rate         1 2 %         1 2 %  | TOTAL                  | 2043                                     | 11630       |          | 830                                | 4643        |
| Buses 280 385 175 175 Carpools (1) 3841 1248 1570 586 Vanpools 240 400 130 210 Hybrid/Single Occ. (2) 33 10985 21 4345 Violators 25 — 10 —  TOTAL 4497 13041 1935 5321  RATES  HOV Lane occupancy rate  Mixed Flow occupancy rate  Overall occupancy rate  Overall occupancy (incl. buses) Violation rate  1 2 %  1 2 %  1 175 175 175 175 175 175 175 175 175 175   | PERSONS                | HOV Lane                                 |             | <u> </u> | HOV Lane                           |             |
| Carpools (1) 3841 1248 1570 586 Vanpools 240 400 130 210 Hybrid/Single Occ. (2) 33 10985 21 4345 Violators 25 — 10 —  TOTAL 4497 13041 1935 5321  RATES  HOV Lane occupancy rate  Mixed Flow occupancy rate  Overall occupancy (incl. buses) Violation rate (3)  Violation rate (3)  Vanpools 1248 1570 586 130 210 14345 1434 | Motorcycles            | 78                                       | 23          |          | 29                                 | 5           |
| Vanpools         240         400         130         210           Hybrid/Single Occ. (2)         33         10985         21         4345           Violators         25         —         10         —           TOTAL         4497         13041         1935         5321           RATES           HOV Lane occupancy rate         2.2 persons/veh         2.3 persons/veh           Mixed Flow occupancy rate         1.1 persons/veh         1.1 persons/veh           Overall occupancy (incl. buses)         1.3 %         1.3 %           Violation rate (3)         1.2 %         1.2 %   | Buses                  | 280                                      | 385         |          | 175                                | 175         |
| Hybrid/Single Occ. (2)   33   10985   21   4345     Violators   25   —   10   —   TOTAL   4497   13041   1935   5321      RATES   HOV Lane occupancy rate   2.2 persons/veh   2.3 persons/veh     Mixed Flow occupancy rate   1.1 persons/veh   1.1 persons/veh     Overall occupancy (incl. buses)   1.3 %   1.3 %     Violation rate   1.2 %   1.2 %   | Carpools (1)           | 3841                                     | 1248        |          | 1570                               | 586         |
| Violators 25 — 10 —  TOTAL 4497 13041 1935 5321  RATES  HOV Lane occupancy rate  Mixed Flow occupancy rate  Overall occupancy (incl. buses)  Violation rate  1.2 %  10 —  1935 5321  2.3 persons/veh  1.1 persons/veh  1.1 persons/veh  1.2 %  | Vanpools               | 240                                      | 400         |          | 130                                | 210         |
| TOTAL 4497 13041 1935 5321  RATES  HOV Lane occupancy rate  Mixed Flow occupancy rate  Overall occupancy (incl. buses)  Violation rate  4497 13041 1935 5321  1935 5321  1935 5321  1935 1321  1935 1321  1935 1321  1935 1321  1935 1321  | Hybrid/Single Occ. (2) | 33                                       | 10985       |          | 21                                 | 4345        |
| HOV Lane occupancy rate  Mixed Flow occupancy rate  Overall occupancy (incl. buses)  Violation rate  HOV Lane 2.2 persons/veh  1.1 persons/veh  1.1 persons/veh  1.2 %  1.2 %  1.2 %   | Violators              | 25                                       |             |          | 10                                 |             |
| HOV Lane occupancy rate  Mixed Flow occupancy rate  Overall occupancy (incl. buses)  Violation rate  2.2 persons/veh  1.1 persons/veh  1.1 persons/veh  1.3 %  1.3 %  1.2 %  1.2 %   | TOTAL                  | 4497                                     | 13041       |          | 1935                               | 5321        |
| Occupancy rate  Mixed Flow occupancy rate  Overall occupancy (incl. buses)  Violation rate  2.2 persons/ven  1.1 persons/veh  1.2 %  1.3 %  1.3 %  1.2 %   | RATES                  |  |             | _        |                                    |             |
| Overall occupancy (incl. buses)  Violation rate  1.1 persons/ven  1.1 persons/ven  1.3 %  1.3 %  1.2 %  1.2 %  |                        | 2.2                                      | persons/veh |          | 2.3                                | persons/veh |
| Violation rate  1.3 %  1.3 %  1.3 %  1.3 %  1.3 %  1.3 %  1.3 %  1.3 %  1.3 %  |                        | 1.1 persons/veh                          |             |          | 1.1                                | persons/veh |
| Violation rate 12% 12%   |                        | 1.3 %                                    |             |          | 1.3 %                              |             |
|  | Violation rate `       | 1.2                                      | %           |          | 1.2                                | %           |

- **NOTES:** (1) Two or more persons per vehicle.
  - (2) Hybrid HOV lane only/Single and two Occupancy mixed flow lanes only.
  - (3) Violation rate =  $\underline{no. of violators in HOV lane \ x \ 100\%}$

Total no. of vehicles in HOV lane

- (4) HOV lane in operation from 5:00 to 10:00 A.M.
- (5) Observations conducted 11/17/10 at Airway Blvd I/C.

# **Violation History**

Hacienda Dr. to Livermore Ave.

#### **Eastbound**

|           | DATE             | PERIOD<br>MONITORED | TOTAL HOVL<br>VOLUME | VIOLATION<br>RATE |
|-----------|------------------|---------------------|----------------------|-------------------|
| A.M. PEAK | Year 2010        | -                   | -                    | -                 |
|           |                  |                     |                      |                   |
| P.M. PEAK | Wed Nov 17, 2010 | 3:00 - 7:00 PM      | 2043                 | 1.2%              |

**NOTES:** (a) Morning period of operation from 5:00 to 10:00 AM.

- (b) Evening period of operation from 3:00 to 7:00 PM.
- (c) Data was not collected in 2010 for off-peak direction

### Eastbound - A.M.

29

7

355

Livermore Ave to W/O Greenville

Typical data for 2010 (5)

1750

1893

**PEAK HOUR** 

|              | 6:00 - 9:00 AM |                     | 7:00 - 8 | 7:00 - 8:00 AM      |  |
|--------------|----------------|---------------------|----------|---------------------|--|
| VEHICLES     | HOV Lane       | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |  |
| Motorcycles  | 4              | 11                  | 2        | 5                   |  |
| Buses        | 7              | 29                  | 1        | 11                  |  |
| Carpools (1) | 827            | 348                 | 303      | 126                 |  |
| Vanpools     | 31             | 7                   | 13       | 1                   |  |

PEAK PERIOD (4)

 Hybrid/Single Occ. (2)
 54
 4973

 Violators
 32
 —

 TOTAL
 955
 5368

| PERSONS                | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 4        | 11                  | 2        | 5                   |
| Buses                  | 245      | 1015                | 35       | 385                 |
| Carpools (1)           | 1718     | 727                 | 621      | 260                 |
| Vanpools               | 310      | 70                  | 130      | 10                  |
| Hybrid/Single Occ. (2) | 54       | 4973                | 29       | 1750                |
| Violators              | 32       | _                   | 7        | _                   |
| TOTAL                  | 2363     | 6796                | 824      | 2410                |

#### **RATES**

| HOV Lane occupancy rate                     | 2.5 persons/veh | 2.3 persons/veh |
|---|-----------------|-----------------|
| Mixed Flow occupancy rate                   | 1.3 persons/veh | 1.3 persons/veh |
| Overall occupancy (incl. buses)             | 1.4 persons/veh | 1.4 persons/veh |
| Violation rate <sup>(3)</sup><br>(HOV Lane) | 3.4 %           | 2.0 %           |

**NOTES:** (1) Two or more persons per vehicle.

- (2) Hybrid HOV lane only/Single and two Occupancy mixed flow lanes only.
- (3) Violation rate =  $\underline{no. of violators in HOV lane \ x \ 100\%}$

 $Total\ no.\ of\ vehicles\ in\ HOV\ lane$ 

- (4) HOV lane in operation from 6:00 to 9:00 A.M.
- (5) Observations conducted 05/27/10 at Vasco Rd. I/C

### Eastbound - P.M.

Livermore Ave to W/O Greenville

Typical data for 2010 (5)

|                                  | <b>PEAK PERIOD</b> (4)<br>3:00 - 6:00 PM |                     |          | HOUR<br>5:00 PM     |
|----------------------------------|--|---------------------|----------|---------------------|
| VEHICLES                         | HOV Lane                                 | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
| Motorcycles                      | 21                                       | 25                  | 10       | 6                   |
| Buses                            | 4  | 5                   | 2        | 1                   |
| Carpools (1)                     | 1556                                     | 584                 | 566      | 222                 |
| Vanpools                         | 33                                       | 13                  | 12       | 5                   |
| Hybrid/Single Occ. (2)           | 1  | 12380               | 1        | 4203                |
| Violators                        | 50                                       |                     | 12       |                     |
| TOTAL                            | 1665                                     | 13007               | 603      | 4437                |
| PERSONS                          | HOV Lane                                 | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
| Motorcycles                      | 21                                       | 25                  | 10       | 6                   |
| Buses                            | 140                                      | 175                 | 70       | 35                  |
| Carpools (1)                     | 3179                                     | 1001                | 1155     | 453                 |
| Vanpools                         | 330                                      | 130                 | 120      | 50                  |
| Hybrid/Single Occ. (2)           | 1  | 12380               | 1        | 4203                |
| Violators                        | 50                                       |                     | 12       |                     |
| TOTAL                            | 3721                                     | 13711               | 1368     | 4747                |
| RATES                            |  |                     |          |                     |
| HOV Lane occupancy rate          | 2.2                                      | persons/veh         | 2.3      | persons/veh         |
| Mixed Flow occupancy rate        | 1.1                                      | persons/veh         | 1.1      | persons/veh         |
| Overall occupancy (incl. buses)  | 1.2                                      | persons/veh         | 1.2      | . persons/veh       |
| Violation rate (3)<br>(HOV Lane) | 3.0                                      | %                   | 2.0      | %                   |
|                                  |  |                     |          |                     |

**NOTES:** (1) Two or more persons per vehicle.

- (2) Hybrid HOV lane only/Single and two Occupancy mixed flow lanes only.
- (3) Violation rate = no. of violators in HOV lane x 100%

Total no. of vehicles in HOV lane

- (4) HOV lane in operation from 6:00 to 9:00 A.M.
- (5) Observations conducted 03/09/10 at Vasco Rd. I/C

# **Violation History**

Livermore I/C to W/O Greenville Rd.

#### **Eastbound**

|           | DATE             | PERIOD<br>MONITORED | TOTAL HOVL<br>VOLUME | VIOLATION<br>RATE |
|-----------|------------------|---------------------|----------------------|-------------------|
| A.M. PEAK | Thu May 27, 2010 | 6:00 - 9:00 AM      | 2765                 | 3.4%              |
|           | Thu Oct 1, 2009  | 6:00 - 9:00 AM      | -                    | 0.0%              |
|           |                  |                     |                      |                   |
|           |                  |                     |                      |                   |
| P.M. PEAK | Tue Mar 9, 2010  | 3:00 - 7:00 PM      | 1665                 | 3.0%              |
|           | Tue Oct 6, 2009  | 3:00 - 7:00 PM      | 1616                 | 3.3%              |

#### NOTES:

- (a) Morning period of operation from 5:00 to 10:00 AM.
- (b) Evening period of operation from 3:00 to 7:00 PM.

### Southbound - A.M.

Route 84 to ALA/SCL Co. Line

Typical data for 2010 (5)

| PEA                  | K  | PF | RI  | OD | (4) |
|----------------------|----|----|-----|----|-----|
| $\Gamma \subseteq F$ | ۱n |    | יוא | UU |     |

#### **PEAK HOUR**

6:00 - 9:00 AM

8:00 - 9:00 AM

| VEHICLES                | HOV Lane | Mixed Flow<br>Lanes |   | HOV Lane | Mixed Flow<br>Lanes |
|-------------------------|----------|---------------------|---|----------|---------------------|
| Motorcycles             | 70       | 5                   | _ | 34       | 2                   |
| Buses                   | 2        | 8                   | _ | 1        | 4                   |
| Carpools <sup>(1)</sup> | 1859     | 316                 | _ | 690      | 79                  |
| Vanpools                | 22       | 95                  | _ | 7        | 29                  |
| Hybrid/Single Occ. (2)  | 206      | 15163               | _ | 93       | 5353                |
| Violators               | 13       |                     | _ | 10       |                     |
| TOTAL                   | 2172     | 15587               |   | 835      | 5467                |

| PERSONS                | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 70       | 5                   | 34       | 2                   |
| Buses                  | 70       | 280                 | 35       | 140                 |
| Carpools (1)           | 3871     | 642                 | 1436     | 159                 |
| Vanpools               | 220      | 950                 | 70       | 290                 |
| Hybrid/Single Occ. (2) | 206      | 15163               | 93       | 5353                |
| Violators              | 13       |                     | 10       |                     |
| TOTAL                  | 4450     | 17040               | 1678     | 5944                |

#### **RATES**

| HOV Lane occupancy rate                     | 2.0 persons/veh | 2.0 persons/veh |
|---|-----------------|-----------------|
| Mixed Flow occupancy rate                   | 1.1 persons/veh | 1.1 persons/veh |
| Overall occupancy (incl. buses)             | 1.2 persons/veh | 1.2 persons/veh |
| Violation rate <sup>(3)</sup><br>(HOV Lane) | 0.6 %           | 1.2 %           |

**NOTES:** (1) Two or more persons per vehicle.

- (2) Hybrid HOV lane only/Single and two Occupancy mixed flow lanes only.
- (3) Violation rate =  $\frac{\text{no. of violators in HOV lane } \times 100\%}{\text{Total no. of vehicles in HOV lane}}$
- (4) HOV lane in operation from 5:00 to 9:00 A.M.
- (5) Observations conducted 04/29/10 at Vargas Road I/C.

### Southbound - P.M.

Route 84 to ALA/SCL Co. Line

Typical data for 2010 (5)

**PEAK HOUR** 

| 3:00 - 6:00 PM |                     | 5:00 - 6:00 PM |                     |  |
|----------------|---------------------|----------------|---------------------|--|
| HOV Lane       | Mixed Flow<br>Lanes | HOV Lane       | Mixed Flov<br>Lanes |  |

| VEHICLES               | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flov<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 21       | 8                   | 8        | 1                   |
| Buses                  | 0        | 15                  | 0        | 4                   |
| Carpools (1)           | 1475     | 1474                | 531      | 515                 |
| Vanpools               | 5        | 19                  | 1        | 7                   |
| Hybrid/Single Occ. (2) | 32       | 9521                | 18       | 3432                |
| Violators              | 62       |                     | 29       | _                   |
| TOTAL                  | 1595     | 11037               | 587      | 3959                |

PEAK PERIOD (4)

| PERSONS                | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 21       | 8                   | 8        | 1                   |
| Buses                  | 0        | 525                 | 0        | 140                 |
| Carpools (1)           | 3101     | 3147                | 1128     | 1092                |
| Vanpools               | 50       | 190                 | 10       | 70                  |
| Hybrid/Single Occ. (2) | 32       | 9521                | 18       | 3432                |
| Violators              | 62       | _                   | 29       | _                   |
| TOTAL                  | 3266     | 13391               | 1193     | 4735                |

#### **RATES**

| HOV Lane occupancy rate         | 2.0 persons/veh | 2.0 persons/veh |
|---------------------------------|-----------------|-----------------|
| Mixed Flow occupancy rate       | 1.2 persons/veh | 1.2 persons/veh |
| Overall occupancy (incl. buses) | 1.3 persons/veh | 1.3 persons/veh |
| Violation rate (3) (HOV Lane)   | 3.9 %           | 4.9 %           |

**NOTES:** (1) Two or more persons per vehicle.

- (2) Hybrid HOV lane only/Single and two Occupancy mixed flow lanes only.
- (3) Violation rate = no. of violators in HOV lane x 100% Total no. of vehicles in HOV lane
- (4) HOV lane in operation from 3:00 to 7:00 P.M.
- (5) Observations conducted 04/29/10 at Vargas Road I/C.

Route 84 to ALA/SCL Co. Line

# **Violation History**

#### Southtbound

**VIOLATION** 

| ٨  | M   | D     |    | ٨ | V |
|----|-----|-------|----|---|---|
| Α. | IVI | <br>М | ㄷ. | А | Κ |

| DATE             | MONITORED      | VOLUME | RATE |
|------------------|----------------|--------|------|
| Thu Apr 29, 2010 | 6:00 - 9:00 AM | 2172   | 0.6% |
| Thu Nov 12, 2009 | 6:00 - 9:00 AM | 3143   | 0.3% |
| Wed Oct 22, 2008 | 6:00 - 9:00 AM | 2549   | 1.5% |
| Wed Sep 19, 2007 | 6:00 - 9:00 AM | 2454   | 3.3% |
| Tue Jun 13, 2006 | 6:00 - 9:00 AM | 2121   | 3.0% |
| Tue Oct 4, 2005  | 6:00 - 9:00 AM | 2133   | 3.6% |
| Thu Dec 2, 2004  | 6:00 - 9:00 AM | 1970   | 9.8% |
| Thu Oct 9, 2003  | 6:00 - 9:00 AM | 2138   | 0.2% |
| Thu Dec 5, 2002  | 6:00 - 9:00 AM | 1098   | 4.4% |
|                  |                |        |      |

**PERIOD** 

**TOTAL HOVL** 

#### P.M. PEAK

| Thu Apr 29, 2010 | 3:00 - 6:00 PM | 1595 | 3.9% |
|------------------|----------------|------|------|
| Tue May 12, 2009 | 3:00 - 6:00 PM | 980  | 5.7% |
| Tue Dec 9, 2008  | 3:00 - 6:00 PM | 1052 | 2.6% |
| Tue Jun 5, 2007  | 3:00 - 6:00 PM | 1481 | 3.5% |
| Tue Sep 19, 2006 | 3:00 - 6:00 PM | 1669 | 1.1% |
| Thu Nov 3, 2005  | 3:00 - 6:00 PM | 1752 | 1.0% |
| Year 2004        | -              | -    | -    |
| Tue Jun 3, 2003  | 3:00 - 6:00 PM | 1149 | 4.4% |
|                  |                |      |      |

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.

- (b) Evening period of operation from 3:00 to 7:00 PM.
- (c) Data was not collected in 2004 for off-peak direction

### Southbound - A.M.

Marina Boulevard to Whipple Road

Typical data for 2010 (5)

|   | PEAK PERIOD (4)<br>6:00 - 9:00 AM |                     | <b>PEAK</b> 7:00 - 8 |                     |
|---|-----------------------------------|---------------------|----------------------|---------------------|
| VEHICLES                                    | HOV Lane                          | Mixed Flow<br>Lanes | HOV Lane             | Mixed Flow<br>Lanes |
| Motorcycles                                 | 55                                | 5                   | 7                    | 0                   |
| Buses                                       | 33                                | 18                  | 12                   | 1                   |
| Carpools (1)                                | 2357                              | 175                 | 886                  | 52                  |
| Vanpools                                    | 19                                | 47                  | 5                    | 6                   |
| Hybrid/Single Occ. (2)                      | 312                               | 11145               | 89                   | 3803                |
| Violators                                   | 170                               |                     | 55                   |                     |
| TOTAL                                       | 2946                              | 11390               | 1054                 | 3862                |
| PERSONS                                     | HOV Lane                          | Mixed Flow<br>Lanes | HOV Lane             | Mixed Flow<br>Lanes |
| Motorcycles                                 | 55                                | 5                   | 7                    | 0                   |
| Buses                                       | 1155                              | 630                 | 420                  | 35                  |
| Carpools (1)                                | 5993                              | 360                 | 2300                 | 111                 |
| Vanpools                                    | 190                               | 470                 | 50                   | 60                  |
| Hybrid/Single Occ. (2)                      | 312                               | 11145               | 89                   | 3803                |
| Violators                                   | 170                               |                     | 55                   |                     |
| TOTAL                                       | 7875                              | 12610               | 2921                 | 4009                |
| RATES                                       |                                   |                     |                      |                     |
| HOV Lane occupancy rate                     | 2.7                               | persons/veh         | 2.8                  | persons/veh         |
| Mixed Flow occupancy rate                   | 1.1                               | persons/veh         | 1.0                  | persons/veh         |
| Overall occupancy (incl. buses)             | 1.4                               | persons/veh         | 1.4                  | persons/veh         |
| Violation rate <sup>(3)</sup><br>(HOV Lane) | 5.8                               | %                   | 5.2                  | %                   |
|   |                                   |                     |                      |                     |

- **NOTES:** (1) Two or more persons per vehicle.
  - (2) Hybrid HOV lane only/Single and two Occupancy mixed flow lanes only.
  - (3) Violation rate = no. of violators in HOV lane x 100%

Total no. of vehicles in HOV lane

- (4) HOV lane in operation from 5:00 to 9:00 A.M.
- (5) Observations conducted 03/25/10 at Tennyson Road I/C.

### Southbound - P.M.

Marina Boulevard to Whipple Road

Typical data for 2010 (5)

|   | PEAK PERIOD (4)<br>3:00 - 6:00 PM |                     |          | HOUR<br>6:00 PM     |
|---|-----------------------------------|---------------------|----------|---------------------|
| VEHICLES                                    | HOV Lane                          | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
| Motorcycles                                 | 87                                | 29                  | 40       | 5                   |
| Buses                                       | 20                                | 14                  | 5        | 5                   |
| Carpools (1)                                | 3143                              | 848                 | 1160     | 250                 |
| Vanpools                                    | 15                                | 66                  | 5        | 12                  |
| Hybrid/Single Occ. (2)                      | 82                                | 13580               | 28       | 4858                |
| Violators                                   | 95                                | _                   | 59       | _                   |
| TOTAL                                       | 3442                              | 14537               | 1297     | 5130                |
| PERSONS                                     | HOV Lane                          | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
| Motorcycles                                 | 87                                | 29                  | 40       | 5                   |
| Buses                                       | 700                               | 490                 | 175      | 175                 |
| Carpools <sup>(1)</sup>                     | 6475                              | 1776                | 2379     | 522                 |
| Vanpools                                    | 150                               | 660                 | 50       | 120                 |
| Hybrid/Single Occ. (2)                      | 82                                | 13580               | 28       | 4858                |
| Violators                                   | 95                                |                     | 59       |                     |
| TOTAL                                       | 7589                              | 16535               | 2731     | 5680                |
| RATES                                       |                                   |                     |          |                     |
| HOV Lane occupancy rate                     | 2.2                               | persons/veh         | 2.1      | persons/veh         |
| Mixed Flow occupancy rate                   | 1.1                               | persons/veh         | 1.1      | persons/veh         |
| Overall occupancy (incl. buses)             | 1.3                               | persons/veh         | 1.3      | B persons/veh       |
| Violation rate <sup>(3)</sup><br>(HOV Lane) | 2.8                               | %                   | 4.5      | 5 %                 |
|   |                                   |                     |          |                     |

**NOTES:** (1) Two or more persons per vehicle.

- (2) Hybrid HOV lane only/Single and two Occupancy mixed flow lanes only.
- (3) Violation rate = no. of violators in HOV lane x 100%Total no. of vehicles in HOV lane

- (4) HOV lane in operation from 3:00 to 7:00 P.M.
- (5) Observations conducted 05/06/10 at Tennyson Road I/C.

### Northbound - A.M.

Whipple Road to South of Route 238

Typical data for 2010 (5)

|   | PEAK PERIOD (4)<br>6:00 - 9:00 AM |                     | <b>PEAK</b> 7:00 - 8 |                     |
|---|-----------------------------------|---------------------|----------------------|---------------------|
| VEHICLES                                    | HOV Lane                          | Mixed Flow<br>Lanes | HOV Lane             | Mixed Flow<br>Lanes |
| Motorcycles                                 | 52                                | 4                   | 16                   | 1                   |
| Buses                                       | 40                                | 19                  | 17                   | 4                   |
| Carpools (1)                                | 2186                              | 211                 | 907                  | 70                  |
| Vanpools                                    | 29                                | 97                  | 15                   | 38                  |
| Hybrid/Single Occ. (2)                      | 78                                | 11914               | 31                   | 4363                |
| Violators                                   | 41                                |                     | 3                    | _                   |
| TOTAL                                       | 2426                              | 12245               | 989                  | 4476                |
| PERSONS                                     | HOV Lane                          | Mixed Flow<br>Lanes | HOV Lane             | Mixed Flow<br>Lanes |
| Motorcycles                                 | 52                                | 4                   | 16                   | 1                   |
| Buses                                       | 1400                              | 665                 | 595                  | 140                 |
| Carpools (1)                                | 4566                              | 444                 | 1873                 | 152                 |
| Vanpools                                    | 290                               | 970                 | 150                  | 380                 |
| Hybrid/Single Occ. (2)                      | 78                                | 11914               | 31                   | 4363                |
| Violators                                   | 41                                |                     | 3                    | _                   |
| TOTAL                                       | 6427                              | 13997               | 2668                 | 5036                |
| RATES                                       |                                   |                     |                      |                     |
| HOV Lane occupancy rate                     | 2.6                               | persons/veh         | 2.7                  | persons/veh         |
| Mixed Flow occupancy rate                   | 1.1                               | persons/veh         | 1.1                  | persons/veh         |
| Overall occupancy (incl. buses)             | 1.4                               | persons/veh         | 1.4                  | persons/veh         |
| Violation rate <sup>(3)</sup><br>(HOV Lane) | 1.7                               | %                   | 0.3                  | %                   |
| •   |                                   |                     |                      |                     |

- **NOTES:** (1) Two or more persons per vehicle.
  - (2) Hybrid HOV lane only/Single and two Occupancy mixed flow lanes only.
  - (3) Violation rate = no. of violators in HOV lane x 100%
    - Total no. of vehicles in HOV lane
  - (4) HOV lane in operation from 5:00 to 9:00 A.M.
  - (5) Observations conducted 05/12/10 at Tennyson Road I/C.

### Northbound - P.M.

Whipple Road to South of Route 238

Typical data for 2010 (5)

| VEHICLESHOV LaneMixed Flow LanesHOV LaneMixed Flow LanesMotorcycles10115409 | )W |
|---|----|
| •   |    |
| D   |    |
| Buses 28 26 8 5   |    |
| Carpools (1) 2512 627 850 199   |    |
| Vanpools 43 2 _ 10 0  |    |
| Hybrid/Single Occ. (2) 149 11796 75 4158                                    |    |
| Violators         46         —         1         —                          |    |
| <b>TOTAL</b> 2879 12466 984 4371  |    |
| PERSONS HOV Lane Mixed Flow Lanes HOV Lane Lanes                            | W  |
| Motorcycles 101 15 40 9   |    |
| Buses 980 910 280 175   |    |
| Carpools (1) 5241 1349 1794 430   |    |
| Vanpools 430 20 100 0   |    |
| Hybrid/Single Occ. (2) 149 11796 75 4158                                    |    |
| Violators <u>46 — 1 — </u>  |    |
| <b>TOTAL</b> 6947 14090 2290 4772   |    |
| RATES   |    |
| HOV Lane occupancy rate 2.4 persons/veh 2.3 persons/veh                     | :h |
| Mixed Flow occupancy rate 1.1 persons/veh 1.1 persons/veh                   | :h |
| Overall occupancy (incl. buses)  1.4 persons/veh  1.3 persons/veh           | :h |
| Violation rate (3) (HOV Lane) 1.6 % 0.1 %                                   |    |

- **NOTES:** (1) Two or more persons per vehicle.
  - (2) Hybrid HOV lane only/Single and two Occupancy mixed flow lanes only.
  - (3) Violation rate =  $\underline{no. of violators in HOV lane \ x \ 100\%}$

Total no. of vehicles in HOV lane

- $(4) \ \ HOV\ lane\ in\ operation\ from\ 3:00\ to\ 7:00\ P.M.$
- (5) Observations conducted 05/11/10 at Tennyson Road I/C.

Marina Boulevard to Whipple Road

## **Violation History**

### **Southbound**

**VIOLATION** 

### A.M. PEAK

| DATE             | MONITORED      | VOLUME | RATE |
|------------------|----------------|--------|------|
| Thu Mar 25, 2010 | 6:00 - 9:00 AM | 2946   | 5.8% |
| Wed Oct 21, 2009 | 6:00 - 9:00 AM | 3133   | 5.9% |
| Wed Apr 30, 2008 | 6:00 - 9:00 AM | 2539   | 2.6% |
| Thu Mar 22, 2007 | 6:00 - 9:00 AM | 2923   | 3.9% |
| Wed Oct 4, 2006  | 6:00 - 9:00 AM | 2361   | 3.2% |
| Wed Mar 30, 2005 | 6:00 - 9:00 AM | 2278   | 2.9% |
| Wed Nov 3, 2004  | 6:00 - 9:00 AM | 2723   | 3.6% |
| Tue Oct 7, 2003  | 6:00 - 9:00 AM | 3049   | 3.7% |
| Tue Jun 11, 2002 | 6:00 - 9:00 AM | 3638   | 7.5% |
| Wed Mar 21, 2001 | 6:00 - 9:00 AM | 3971   | 5.2% |
| Tue May 9, 2000  | 6:00 - 9:00 AM | 3661   | 4.6% |
|                  |                |        |      |

PERIOD

TOTAL HOVL

#### P.M. PEAK

| Thu May 6, 2010  | 3:00 - 6:00 PM | 3442 | 2.8% |
|------------------|----------------|------|------|
| Thu Mar 26, 2009 | 3:00 - 6:00 PM | 3132 | 1.2% |
| Tue Oct 14, 2008 | 3:00 - 6:00 PM | 3155 | 5.9% |
| Thu Oct 11, 2007 | 3:00 - 6:00 PM | 3010 | 1.8% |
| Thu Sep 28, 2006 | 3:00 - 6:00 PM | 2494 | 1.5% |
| Tue Nov 8, 2005  | 3:00 - 6:00 PM | 3053 | 2.0% |
| Wed Dec 1, 2004  | 3:00 - 6:00 PM | 3036 | 2.6% |
| Wed Jun 4, 2003  | 3:00 - 6:00 PM | 3708 | 6.0% |
| Wed Jun 5, 2002  | 3:00 - 6:00 PM | 3401 | 5.2% |
| Thu Apr 26, 2001 | 3:00 - 6:00 PM | 3134 | 3.9% |
| Tue May 9, 2000  | 3:00 - 6:00 PM | 2484 | 5.6% |
|                  |                |      |      |

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.

Whipple Road to South of Route 238

## **Violation History**

### **Northbound**

| Δ | М | PF | ΔΚ | • |
|---|---|----|----|---|

| DATE             | PERIOD<br>MONITORED | TOTAL HOVL<br>VOLUME | VIOLATION<br>RATE |
|------------------|---------------------|----------------------|-------------------|
| Wed May 12, 2010 | 6:00 - 9:00 AM      | 2426                 | 1.7%              |
| Wed May 13, 2009 | 6:00 - 9:00 AM      | 2833                 | 1.1%              |
| Wed May 7, 2008  | 6:00 - 9:00 AM      | 2563                 | 2.2%              |
| Wed Oct 3, 2007  | 6:00 - 9:00 AM      | 2485                 | 0.3%              |
| Thu Dec 7, 2006  | 6:00 - 9:00 AM      | 2449                 | 2.2%              |
| Thu Oct 6, 2005  | 6:00 - 9:00 AM      | 2735                 | 2.0%              |
| Tue Nov 2, 2004  | 6:00 - 9:00 AM      | 2954                 | 5.3%              |
| Thu May 22, 2003 | 6:00 - 9:00 AM      | 2920                 | 1.4%              |
| Thu Sep 12, 2002 | 6:00 - 9:00 AM      | 2560                 | 8.8%              |
| Thu Oct 11, 2001 | 6:00 - 9:00 AM      | 2212                 | 5.2%              |
| Tue Nov 7, 2000  | 6:00 - 9:00 AM      | 1648                 | 7.6%              |

### P.M. PEAK

| Tue May 11, 2010 | 3:00 - 6:00 PM | 2879 | 1.6% |
|------------------|----------------|------|------|
| Wed Jun 10, 2009 | 3:00 - 6:00 PM | 3964 | 3.3% |
| Tue Dec 2, 2008  | 3:00 - 6:00 PM | 3522 | 1.7% |
| Wed Sep 26, 2007 | 3:00 - 6:00 PM | 3563 | 1.5% |
| Tue Oct 24, 2006 | 3:00 - 6:00 PM | 3203 | 1.1% |
| Tue Apr 5, 2005  | 3:00 - 6:00 PM | 3780 | 2.8% |
| Tue Nov 30, 2004 | 3:00 - 6:00 PM | 3422 | 1.6% |
| Thu Oct 9, 2003  | 3:00 - 6:00 PM | 3657 | 3.0% |
| Wed May 8, 2002  | 3:00 - 6:00 PM | 3878 | 8.4% |
| Wed May 2, 2001  | 3:00 - 6:00 PM | 4069 | 4.8% |
| Thu Oct 5, 2000  | 3:00 - 6:00 PM | 4433 | 6.4% |
| -                |                |      |      |

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.

## Southbound - A.M.

Whipple Road to Santa Clara Co. Line

Typical data for 2010 (5)

|                                 | PEAK PERIOD (4)<br>6:00 - 9:00 AM |                     | Р           |      | HOUR<br>9:00 AM     |
|---------------------------------|-----------------------------------|---------------------|-------------|------|---------------------|
| VEHICLES                        | HOV Lane                          | Mixed Flow<br>Lanes | HOV         | Lane | Mixed Flow<br>Lanes |
| Motorcycles                     | 38                                | 0                   | 1           | 5    | 0                   |
| Buses                           | 24                                | 23                  | 6           | 3    | 1                   |
| Carpools (1)                    | 1945                              | 210                 | 85          | 59   | 77                  |
| Vanpools                        | 47                                | 93                  | 2           | 0    | 34                  |
| Hybrid/Single Occ. (2)          | 159                               | 12262               | 10          | )4   | 4233                |
| Violators                       | 27                                | _                   | 1           | 2    | _                   |
| TOTAL                           | 2240                              | 12588               | 10          | 16   | 4345                |
| PERSONS                         | HOV Lane                          | Mixed Flow<br>Lanes | HOV         | Lane | Mixed Flow<br>Lanes |
| Motorcycles                     | 38                                | 0                   | 1           | 5    | 0                   |
| Buses                           | 840                               | 805                 | 21          | 10   | 35                  |
| Carpools (1)                    | 4069                              | 433                 | 18          | 06   | 157                 |
| Vanpools                        | 470                               | 930                 | 20          | 00   | 340                 |
| Hybrid/Single Occ. (2)          | 159                               | 12262               | 10          | )4   | 4233                |
| Violators                       | 27                                | _                   | 1           | 2    |                     |
| TOTAL                           | 5603                              | 14430               | 23          | 47   | 4765                |
| RATES                           |                                   |                     |             |      |                     |
| HOV Lane occupancy rate         | 2.5                               | persons/veh         |             | 2.3  | persons/veh         |
| Mixed Flow occupancy rate       | 1.1 persons/veh 1.1 per           |                     | persons/veh |      |                     |
| Overall occupancy (incl. buses) | 1.4                               | persons/veh         |             | 1.3  | persons/veh         |
| Violation rate (3) (HOV Lane)   | 1.2                               | %                   |             | 1.2  | %                   |

- (2) Hybrid HOV lane only/Single and two Occupancy mixed flow lanes only.
- (3) Violation rate =  $\underline{no. of violators in HOV lane \ x \ 100\%}$ Total no. of vehicles in HOV lane

- (4) HOV lane in operation from 5:00 to 9:00 A.M.
- (5) Observations conducted 05/26/10 at Mowry Ave. I/C.

# Southbound - P.M.

Whipple Road to Santa Clara Co. Line

Typical data for 2010 (5)

|                                 | <b>PEAK PERIOD</b> (4)<br>3:00 - 6:00 PM |                     |          | HOUR<br>4:00 PM     |
|---------------------------------|--|---------------------|----------|---------------------|
| VEHICLES                        | HOV Lane                                 | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
| Motorcycles                     | 31                                       | 18                  | 9        | 3                   |
| Buses                           | 3  | 13                  | 2        | 6                   |
| Carpools (1)                    | 1907                                     | 632                 | 646      | 301                 |
| Vanpools                        | 33                                       | 22                  | 18       | 11                  |
| Hybrid/Single Occ. (2)          | 52                                       | 11525               | 23       | 3780                |
| Violators                       | 78                                       | _                   | 70       | _                   |
| TOTAL                           | 2104                                     | 12210               | 768      | 4101                |
| PERSONS                         | HOV Lane                                 | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
| Motorcycles                     | 31                                       | 18                  | 9        | 3                   |
| Buses                           | 105                                      | 455                 | 70       | 210                 |
| Carpools (1)                    | 4015                                     | 1327                | 1351     | 632                 |
| Vanpools                        | 330                                      | 220                 | 180      | 110                 |
| Hybrid/Single Occ. (2)          | 52                                       | 11525               | 23       | 3780                |
| Violators                       | 78                                       | _                   | 70       | _                   |
| TOTAL                           | 4611                                     | 13545               | 1703     | 4735                |
| RATES                           |  |                     |          |                     |
| HOV Lane occupancy rate         | 2.2                                      | persons/veh         | 2.2      | persons/veh         |
| Mixed Flow occupancy rate       | 1.1                                      | persons/veh         | 1.2      | persons/veh         |
| Overall occupancy (incl. buses) | 1.3                                      | persons/veh         | 1.3      | persons/veh         |
| Violation rate (3) (HOV Lane)   | 3.7                                      | %                   | 9.1      | %                   |

**NOTES:** (1) Two or more persons per vehicle.

- (2) Hybrid HOV lane only/Single and two Occupancy mixed flow lanes only.
- (3) Violation rate = no. of violators in HOV lane x 100%

- (4) HOV lane in operation from 3:00 to 7:00 P.M.
- (5) Observations conducted 05/04/10 at Mowry Ave. I/C.

## Northbound - A.M.

Santa Clara County Line to Whipple Road

Typical data for 2010 (5)

|                                 | PEAK PERIOD (4)<br>6:00 - 9:00 AM |                     |          | K HOUR<br>8:00 AM   |
|---------------------------------|-----------------------------------|---------------------|----------|---------------------|
| VEHICLES                        | HOV Lane                          | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
| Motorcycles                     | 39                                | 23                  | 13       | 12                  |
| Buses                           | 13                                | 25                  | 7        | 11                  |
| Carpools <sup>(1)</sup>         | 898                               | 548                 | 349      | 196                 |
| Vanpools                        | 8                                 | 20                  | 2        | 6                   |
| Hybrid/Single Occ. (2)          | 58                                | 12867               | 25       | 4758                |
| Violators                       | 30                                |                     | 6        |                     |
| TOTAL                           | 1046                              | 13483               | 402      | 4983                |
| PERSONS -                       | HOV Lane                          | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
| Motorcycles                     | 39                                | 23                  | 13       | 12                  |
| Buses                           | 455                               | 875                 | 245      | 385                 |
| Carpools <sup>(1)</sup>         | 1866                              | 1152                | 719      | 413                 |
| Vanpools                        | 80                                | 200                 | 20       | 60                  |
| Hybrid/Single Occ. (2)          | 58                                | 12867               | 25       | 4758                |
| Violators                       | 30                                |                     | 6        |                     |
| TOTAL                           | 2528                              | 15117               | 1028     | 5628                |
| RATES                           |                                   |                     |          |                     |
| HOV Lane occupancy rate         | 2.4                               | persons/veh         | 2.0      | persons/veh         |
| Mixed Flow occupancy rate       | 1.1                               | persons/veh         | 1.       | 1 persons/veh       |
| Overall occupancy (incl. buses) | 1.2                               | persons/veh         | 1.2      | 2 persons/veh       |
| Violation rate (3) (HOV Lane)   | 2.9                               | %                   | 1.       | 5 %                 |

**NOTES:** (1) Two or more persons per vehicle.

- (2) Hybrid HOV lane only/Single and two Occupancy mixed flow lanes only.
- (3) Violation rate = no. of violators in HOV lane x 100% Total no. of vehicles in HOV lane

Total no. of venteres in 110 v ta

- (4) HOV lane in operation from 5:00 to 9:00 A.M.
- (5) Observations conducted 05/06/10 at Mowry Ave I/C.

## Northbound - P.M.

Santa Clara Co. Line to Whipple Road

Typical data for 2010 (5)

|                                 | PEAK PERIOD (4)<br>3:00 - 6:00 PM |                     | P   |      | HOUR<br>8:00 PM     |
|---------------------------------|-----------------------------------|---------------------|-----|------|---------------------|
| VEHICLES                        | HOV Lane                          | Mixed Flow<br>Lanes | HOV | Lane | Mixed Flow<br>Lanes |
| Motorcycles                     | 72                                | 26                  | 2   | 24   | 15                  |
| Buses                           | 20                                | 25                  | 1   | 0    | 3                   |
| Carpools (1)                    | 1701                              | 923                 | 6   | 78   | 270                 |
| Vanpools                        | 34                                | 15                  | ;   | 5    | 5                   |
| Hybrid/Single Occ. (2)          | 83                                | 14156               | 4   | 12   | 4959                |
| Violators                       | 130                               |                     | 5   | 54   |                     |
| TOTAL                           | 2040                              | 15145               | 8   | 13   | 5252                |
| PERSONS                         | HOV Lane                          | Mixed Flow<br>Lanes | HOV | Lane | Mixed Flow<br>Lanes |
| Motorcycles                     | 72                                | 26                  | 2   | 24   | 15                  |
| Buses                           | 700                               | 875                 | 3   | 50   | 105                 |
| Carpools (1)                    | 3502                              | 1938                | 13  | 392  | 559                 |
| Vanpools                        | 340                               | 150                 | 5   | 50   | 50                  |
| Hybrid/Single Occ. (2)          | 83                                | 14156               | 4   | 12   | 4959                |
| Violators                       | 130                               |                     | 5   | 54   |                     |
| TOTAL                           | 4827                              | 17145               | 19  | 912  | 5688                |
| RATES                           |                                   |                     |     |      |                     |
| HOV Lane occupancy rate         | 2.4                               | persons/veh         |     | 2.4  | persons/veh         |
| Mixed Flow occupancy rate       | 1.1                               | persons/veh         |     | 1.1  | persons/veh         |
| Overall occupancy (incl. buses) | 1.3                               | persons/veh         |     | 1.3  | persons/veh         |
| Violation rate (3) (HOV Lane)   | 6.4                               | %                   |     | 6.6  | %                   |

- **NOTES:** (1) Two or more persons per vehicle.
  - (2) Hybrid HOV lane only/Single and two Occupancy mixed flow lanes only.
  - (3) Violation rate =  $\underline{no. of violators in HOV lane \ x \ 100\%}$

- $(4) \ \ HOV\ lane\ in\ operation\ from\ 3:00\ to\ 7:00\ P.M.$
- (5) Observations conducted 05/05/10 at Mowry Ave. I/C.

Whipple Road to Santa Clara Co. Line

## **Violation History**

### **Southbound**

### A.M. PEAK

| DATE             | PERIOD<br>MONITORED | TOTAL HOVL<br>VOLUME | VIOLATION<br>RATE |
|------------------|---------------------|----------------------|-------------------|
| Wed May 26, 2010 | 6:00 - 9:00 AM      | 2240                 | 1.2%              |
| Thu Mar 19, 2009 | 6:00 - 9:00 AM      | 2185                 | 0.0%              |
| Wed Oct 8, 2008  | 6:00 - 9:00 AM      | 2538                 | 0.2%              |
| Wed Nov 14, 2007 | 6:00 - 9:00 AM      | 2736                 | 3.5%              |
| Tue Dec 5, 2006  | 6:00 - 9:00 AM      | 2509                 | 12.0%             |
| Wed Oct 26, 2005 | 6:00 - 9:00 AM      | 1948                 | 3.0%              |
| Tue Nov 9, 2004  | 6:00 - 9:00 AM      | 2355                 | 2.7%              |
| Tue Jun 3, 2003  | 6:00 - 9:00 AM      | 2418                 | 3.5%              |
| Tue Sep 24, 2002 | 6:00 - 9:00 AM      | 2525                 | 3.2%              |
| Tue Mar 27, 2001 | 6:00 - 9:00 AM      | 3423                 | 4.8%              |

### P.M. PEAK

| Tue May 4, 2010  | 3:00 - 6:00 PM | 2104 | 3.7% |
|------------------|----------------|------|------|
| Wed Oct 21, 2009 | 3:00 - 6:00 PM | 3063 | 0.3% |
| Tue Oct 7, 2008  | 3:00 - 6:00 PM | 2283 | 2.0% |
| Wed May 16, 2007 | 3:00 - 6:00 PM | 2567 | 2.1% |
| Wed Nov 8, 2006  | 3:00 - 6:00 PM | 2669 | 0.7% |
| Wed Nov 9, 2005  | 3:00 - 6:00 PM | 2539 | 1.7% |
| Tue Dec 14, 2004 | 3:00 - 6:00 PM | 2639 | 6.8% |
| Wed May 7, 2003  | 3:00 - 6:00 PM | 2227 | 4.2% |
| Tue May 7, 2002  | 3:00 - 6:00 PM | 2114 | 5.8% |
| Wed Oct 17, 2001 | 3:00 - 6:00 PM | 2157 | 3.8% |

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.

Santa Clara Co. Line to Whipple Road

## **Violation History**

### **Northbound**

**VIOLATION** 

### A.M. PEAK

| DATE             | MONITORED      | VOLUME | RATE |
|------------------|----------------|--------|------|
| Thu May 6, 2010  | 6:00 - 9:00 AM | 1046   | 2.9% |
| Wed Jun 10, 2009 | 6:00 - 9:00 AM | 1056   | 2.4% |
| Wed Apr 16, 2008 | 6:00 - 9:00 AM | 1086   | 1.8% |
| Thu Apr 12, 2007 | 6:00 - 9:00 AM | 1218   | 0.9% |
| Wed Nov 15, 2006 | 6:00 - 9:00 AM | 1383   | 0.7% |
| Thu Apr 14, 2005 | 6:00 - 9:00 AM | 1327   | 4.7% |
| Thu Nov 4, 2004  | 6:00 - 9:00 AM | 1160   | 3.8% |
| Wed Oct 15, 2003 | 6:00 - 9:00 AM | 1413   | 2.5% |
| Tue Apr 16, 2002 | 6:00 - 9:00 AM | 925    | 2.9% |
| Thu Nov 1, 2001  | 6:00 - 9:00 AM | 856    | 9.7% |
| Wed Mar 29, 2000 | 6:00 - 9:00 AM | 956    | 5.6% |
|                  |                |        |      |

PERIOD

TOTAL HOVL

#### P.M. PEAK

| Wed May 5, 2010  | 3:00 - 6:00 PM | 2040 | 6.4% |
|------------------|----------------|------|------|
| Wed May 6, 2009  | 3:00 - 6:00 PM | 2587 | 1.9% |
| Wed Nov 19, 2008 | 3:00 - 6:00 PM | 2551 | 0.6% |
| Thu Oct 18, 2007 | 3:00 - 6:00 PM | 2702 | 2.3% |
| Tue Nov 7, 2006  | 3:00 - 6:00 PM | 2054 | 1.0% |
| Tue Oct 18, 2005 | 3:00 - 6:00 PM | 2695 | 3.7% |
| Tue Nov 23, 2004 | 3:00 - 6:00 PM | 2150 | 0.2% |
| Wed Oct 15, 2003 | 3:00 - 6:00 PM | 2366 | 3.1% |
| Wed May 15, 2002 | 3:00 - 6:00 PM | 2663 | 6.0% |
| Thu Jun 7, 2001  | 3:00 - 6:00 PM | 2755 | 3.9% |
| Wed Nov 1, 2000  | 3:00 - 6:00 PM | 3263 | 3.6% |
|                  |                |      |      |

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.

## Northbound - A.M.

16th Street to SFOBB Toll Plaza

Typical data for 2010

(5)

| PEAK PERIOD (4) |  |
|-----------------|--|
|-----------------|--|

6:00 - 10:00 AM

### **PEAK HOUR**

6:00 - 7:00 AM

| VEHICLES                    | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|-----------------------------|----------|---------------------|----------|---------------------|
| Motorcycles                 | 73       | 0                   | 9        | 0                   |
| Buses                       | 59       | 6                   | 6        | 8                   |
| Carpools (1)                | 1339     | 0                   | 207      | 0                   |
| Hybrid                      | 148      | 0                   | 24       | 0                   |
| Vanpools                    | 24       | 0                   | 5        | 3                   |
| 1 and 2 Occ. <sup>(2)</sup> | _        | 3495                |          | 1210                |
| Violators                   | 236      |                     | 37       | _                   |
| TOTAL                       | 1879     | 3501                | 288      | 1221                |

| PERSONS |              | HOV Lane | Mixed Flow<br>Lanes | HOV | Lane | Mixed Flow<br>Lanes |  |
|---------|--------------|----------|---------------------|-----|------|---------------------|--|
| Mot     | orcycles _   | 73       | 0                   | 3   | 4    | 2                   |  |
|         | Buses        | 2065     | 210                 | 2   | 10   | 280                 |  |
| (       | Carpools (1) | 3721     | 0                   | 56  | 37   | 0                   |  |
|         | Hybrid       | 148      | 0                   | 2   | 4    | 0                   |  |
| V       | anpools _    | 240      | 0                   | 5   | 0    | 30                  |  |
| 1 an    | d 2 Occ. (2) | _        | 3566                | _   | _    | 1349                |  |
| •       | /iolators    | 336      |                     | 6   | 1    | _                   |  |
|         | TOTAL        | 6583     | 3776                | 94  | 16   | 1661                |  |

### **RATES**

| HOV Lane occupancy rate         | 3.5 persons/veh | 3.3 persons/veh |
|---------------------------------|-----------------|-----------------|
| Mixed Flow occupancy rate       | 1.1 persons/veh | 1.4 persons/veh |
| Overall occupancy (incl. buses) | 1.9 persons/veh | 1.7 persons/veh |
| Violation rate (3) (HOV Lane)   | 12.6 %          | 12.8 %          |

**NOTES:** (1) 3 or more persons per vehicle & 2 - seater vehicles with 2 persons.

- (2) Mixed flow lanes only.
- (3) Violation rate = no. of violators in HOV lane x 100%

  Total no. of vehicles in HOV lane
- (4) HOV lane in operation from 5:00 to 10:00 A.M.
- (5) Observations conducted 5/25/10 north of 7th Street Interchange.

16th Street to SFOBB Toll Plaza

# **Violation History**

### **Northbound**

**VIOLATION** 

### A.M. PEAK

| DATE             | MONITORED         | VOLUME | RATE   |
|------------------|-------------------|--------|--------|
| Tue May 25, 2010 | 6:00 - 10:00 AM   | 1970   | 42 60/ |
| Tue May 25, 2010 | 0.00 - 10.00 AIVI | 1879   | 12.6%  |
| Thu Apr 2, 2009  | 7:00 - 10:00 AM   | 1914   | 11.1%  |
| Wed May 21, 2008 | 6:00 - 10:00 AM   | 1745   | 6.5%   |
| Thu Mar 15, 2007 | 7:00 - 10:00 AM   | 1875   | 12.6%  |
| Wed May 10, 2006 | 6:00 - 10:00 AM   | 1763   | 8.5%   |
| Wed Mar 16, 2005 | 6:00 - 10:00 AM   | 1483   | 10.5%  |
| Thu Oct 28, 2004 | 7:00 - 10:00 AM   | 1647   | 15.5%  |
| Wed May 21, 2003 | 5:00 - 10:00 AM   | 1451   | 5.6%   |
| Wed Apr 17, 2002 | 6:00 - 10:00 AM   | 1613   | 4.8%   |
| Thu Mar 22, 2001 | 6:00 - 10:00 AM   | 2402   | 15.5%  |
| Wed Sep 27, 2000 | 7:00 - 10:00 AM   | 2983   | 16.4%  |

PERIOD

TOTAL HOVL

#### P.M. PEAK

| Year 2010        | -              | -   | -     |
|------------------|----------------|-----|-------|
| Year 2009        | -              | -   | -     |
| Year 2008        | -              | -   | -     |
| Year 2007        | -              | -   | -     |
| Year 2006        | -              | -   | -     |
| Year 2005        | -              | -   | -     |
| Year 2004        | -              | -   | -     |
| Tue May 20, 2003 | 3:00 - 7:00 PM | 457 | 3.5%  |
| Wed Apr 17, 2002 | 3:00 - 7:00 PM | 486 | 6.8%  |
| Thu Oct 11, 2001 | 3:00 - 7:00 PM | 397 | 14.6% |
| Wed Oct 18, 2000 | 3:00 - 7:00 PM | 513 | 43.3% |
|                  |                |     |       |

- **NOTES:** (a) Morning period of operation from 5:00 to 10:00 AM
  - (b) Evening period of operation from 3:00 to 7:00 PM.
  - (c) Data was not collected in 2010 off-peak direction

### Westbound - A.M.

Loveridge Road to Port Chicago Highway

Typical data for 2010 (5)

|                                 | <b>PEAK PERIOD</b> (4)<br>6:00 - 9:00 AM |                     |   |          | HOUR<br>8:00 AM     |
|---------------------------------|--|---------------------|---|----------|---------------------|
| VEHICLES                        | HOV Lane                                 | Mixed Flow<br>Lanes |   | HOV Lane | Mixed Flow<br>Lanes |
| Motorcycles                     | 92                                       | 23                  |   | 29       | 7                   |
| Buses                           | 3  | 19                  |   | 1        | 2                   |
| Carpools <sup>(1)</sup>         | 2520                                     | 400                 |   | 1158     | 177                 |
| Vanpools                        | 23                                       | 28                  | _ | 5        | 10                  |
| Hybrid/Single Occ. (2)          | 54                                       | 11745               |   | 24       | 3982                |
| Violators                       | 73                                       | _                   |   | 21       | _                   |
| TOTAL                           | 2765                                     | 12215               |   | 1238     | 4178                |
| PERSONS                         | HOV Lane                                 | Mixed Flow<br>Lanes |   | HOV Lane | Mixed Flow<br>Lanes |
| Motorcycles                     | 92                                       | 23                  |   | 29       | 7                   |
| Buses                           | 105                                      | 665                 | _ | 35       | 70                  |
| Carpools <sup>(1)</sup>         | 5151                                     | 856                 | _ | 2363     | 391                 |
| Vanpools                        | 230                                      | 280                 |   | 50       | 100                 |
| Hybrid/Single Occ. (2)          | 54                                       | 11745               | _ | 24       | 3982                |
| Violators                       | 73                                       | _                   |   | 21       | _                   |
| TOTAL                           | 5705                                     | 13569               |   | 2522     | 4550                |
| RATES                           |  |                     | _ |          |                     |
| HOV Lane occupancy rate         | 2.1                                      | persons/veh         |   | 2.0      | persons/veh         |
| Mixed Flow occupancy rate       | 1.1                                      | persons/veh         | _ | 1.1      | persons/veh         |
| Overall occupancy (incl. buses) | 1.3                                      | persons/veh         | _ | 1.3      | persons/veh         |
| Violation rate (3) (HOV Lane)   | 2.6                                      | %                   | - | 1.7      | %                   |

**NOTES:** (1) Two or more persons per vehicle.

- (2) Hybrid HOV lane only/Single and two Occupancy mixed flow lanes only.
- (3) Violation rate = no. of violators in HOV lane x 100%

- (4) HOV lane in operation from 6:00 to 9:00 A.M.
- (5) Observations conducted 04/14/10 at Bailey Road I/C.

## Eastbound - P.M.

Port Chicago Highway to Railroad Avenue

Typical data for 2010 (5)

|   | PEAK PERIOD (4)<br>3:00 - 6:00 PM |                     |                 | <b>PEAK</b> 5:00 - 6 |                     |
|---|-----------------------------------|---------------------|-----------------|----------------------|---------------------|
| VEHICLES                                    | HOV Lane                          | Mixed Flow<br>Lanes | _               | HOV Lane             | Mixed Flow<br>Lanes |
| Motorcycles                                 | 127                               | 47                  |                 | 49                   | 20                  |
| Buses                                       | 1                                 | 48                  |                 | 0                    | 15                  |
| Carpools (1)                                | 2530                              | 1374                | _               | 850                  | 432                 |
| Vanpools                                    | 26                                | 44                  | _               | 9                    | 9                   |
| Hybrid/Single Occ. (2)                      | 58                                | 17797               |                 | 12                   | 6342                |
| Violators                                   | 58                                |                     |                 | 11                   | _                   |
| TOTAL                                       | 2800                              | 19310               |                 | 931                  | 6818                |
| PERSONS                                     | HOV Lane                          | Mixed Flow<br>Lanes | _               | HOV Lane             | Mixed Flow<br>Lanes |
| Motorcycles                                 | 127                               | 47                  |                 | 49                   | 20                  |
| Buses                                       | 35                                | 1680                | _               | 0                    | 525                 |
| Carpools (1)                                | 5216                              | 2945                | _               | 1741                 | 920                 |
| Vanpools                                    | 260                               | 440                 | _               | 90                   | 90                  |
| Hybrid/Single Occ. (2)                      | 58                                | 17797               | _               | 12                   | 6342                |
| Violators                                   | 58                                |                     |                 | 11                   | _                   |
| TOTAL                                       | 5754                              | 22909               |                 | 1903                 | 7897                |
| RATES                                       |                                   |                     | _               |                      |                     |
| HOV Lane occupancy rate                     | 2.1                               | persons/veh         | 2.0 persons/veh |                      | persons/veh         |
| Mixed Flow occupancy rate                   | 1.2 persons/veh                   |                     | _               | 1.2                  | persons/veh         |
| Overall occupancy (incl. buses)             | 1.3 persons/veh                   |                     |                 | 1.3                  | persons/veh         |
| Violation rate <sup>(3)</sup><br>(HOV Lane) | 2.1                               | %                   | _               | 1.2                  | %                   |

**NOTES:** (1) Two or more persons per vehicle.

- (2) Hybrid HOV lane only/Single and two Occupancy mixed flow lanes only.
- (3) Violation rate = no. of violators in HOV lane x 100%

- (4) HOV lane in operation from 3:00 to 7:00 P.M.
- (5) Observations conducted 06/02/10 at San Marcos I/C.

## **Violation History**

Loveridge Road to Port Chicago Highway

### Westbound

### A.M. PEAK

| DATE             | PERIOD<br>MONITORED | VOLUME | VIOLATION<br>RATE |
|------------------|---------------------|--------|-------------------|
| Wed Apr 14, 2010 | 6:00 - 9:00 AM      | 2765   | 2.6%              |
| Wed Apr 29, 2009 | 6:00 - 9:00 AM      | 3079   | 2.7%              |
| Thu May 29, 2008 | 6:00 - 9:00 AM      | 3435   | 17.9%             |
| Thu Apr 19, 2007 | 6:00 - 9:00 AM      | 3246   | 7.9%              |
| Thu Sep 7, 2006  | 6:00 - 9:00 AM      | 2437   | 3.0%              |
| Tue Jun 7, 2005  | 6:00 - 9:00 AM      | 2634   | 3.3%              |
| Thu Oct 21, 2004 | 6:00 - 9:00 AM      | 2436   | 2.0%              |
| Thu Oct 16, 2003 | 6:00 - 9:00 AM      | 2657   | 3.6%              |
| Thu May 23, 2002 | 6:00 - 9:00 AM      | 2225   | 4.5%              |
| Wed Sep 19, 2001 | 6:00 - 9:00 AM      | 1174   | 7.0%              |
| Wed May 10, 2000 | 6:00 - 9:00 AM      | 861    | 5.6%              |

**NOTES:** (a) Morning period of operation from 6:00 to 9:00 AM.

# **Violation History**

Port Chicago Highway to Railroad Ave.

### **Eastbound**

### P.M. PEAK

| DATE             | PERIOD<br>MONITORED | TOTAL HOVL<br>VOLUME | VIOLATION<br>RATE |
|------------------|---------------------|----------------------|-------------------|
| Wed Jun 2, 2010  | 3:00 - 6:00 PM      | 2800                 | 2.1%              |
| Wed May 13, 2009 | 3:00 - 6:00 PM      | 2729                 | 2.5%              |
| Tue May 6, 2008  | 3:00 - 6:00 PM      | 2794                 | 3.3%              |
| Tue Apr 17, 2007 | 3:00 - 6:00 PM      | 2964                 | 2.5%              |
| Wed Sep 6, 2006  | 3:00 - 6:00 PM      | 2942                 | 1.7%              |
| Thu Oct 20, 2005 | 3:00 - 6:00 PM      | 2524                 | 3.8%              |
| Tue Dec 7, 2004  | 3:00 - 6:00 PM      | 2289                 | 1.7%              |
| Wed May 14, 2003 | 3:00 - 6:00 PM      | 2292                 | 1.9%              |
| Tue Mar 19, 2002 | 3:00 - 6:00 PM      | 2248                 | 4.4%              |
| Tue Oct 30, 2001 | 3:00 - 6:00 PM      | 2011                 | 4.0%              |

### Westbound - A.M.

Solano County Line to Route 4

Typical data for 2010 (5)

### PEAK PERIOD (4)

### **PEAK HOUR**

6:00 - 10:00 AM

6:00 - 7:00 AM

| VEHICLES                        | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |  |
|---------------------------------|----------|---------------------|----------|---------------------|--|
| Motorcycles                     | 88       | 41                  | 35       | 8                   |  |
| Buses                           | 46       | 30                  | 17       | 5                   |  |
| Carpools <sup>(1)</sup>         | 1454     | 313                 | 591      | 64                  |  |
| Hybrid                          | 198      | 59                  | 71       | 19                  |  |
| Vanpools                        | 53       | 11                  | 36       | 8                   |  |
| 1 and 2 Occ. (2)                | _        | 11963               |          | 3081                |  |
| Violators                       | 140      |                     | 37       |                     |  |
| TOTAL                           | 1979     | 12417               | 787      | 3185                |  |
| PERSONS                         | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |  |
| Motorcycles                     | 88       | 41                  | 35       | 8                   |  |
| Buses                           | 1610     | 1050                | 595      | 175                 |  |
| Carpools (1)                    | 4250     | 824                 | 1701     | 396                 |  |
|                                 | 198      | 59                  | 71       | 19                  |  |
| Vanpools                        | 530      | 110                 | 360      | 80                  |  |
| 1 and 2 Occ. <sup>(2)</sup>     | _        | 12906               |          | 3364                |  |
| Violators                       | 159      | _                   | 42       | _                   |  |
| TOTAL                           | 6835     | 14990               | 2804     | 4042                |  |
| RATES                           |          |                     |          |                     |  |
| HOV Lane occupancy rate         | 3.5      | persons/veh         | 3.6      | persons/veh         |  |
| Mixed Flow occupancy rate       | 1.2      | persons/veh         | 1.3      | 1.3 persons/veh     |  |
| Overall occupancy (incl. buses) | 1.5      | persons/veh         | 1.7      | 7 persons/veh       |  |
| Violation rate (3) (HOV Lane)   | 7.1      | %                   | 4.7      | 7 %                 |  |

- **NOTES:** (1) 3 or more persons per vehicle & 2 seater vehicles with 2 persons.
  - (2) Mixed flow lanes only.
  - (3) Violation rate = no. of violators in HOV lane x 100%

- $(4) \ \ HOV\ lane\ in\ operation\ from\ 5:00\ to\ 10:00\ A.M.$
- (5) Observations conducted 5/11/10 east of Cummings Skyway Interchange.

## **Violation History**

Solano County Line to Route 4

### Westbound

|           | DATE             | PERIOD<br>MONITORED | TOTAL HOVL<br>VOLUME | VIOLATION<br>RATE |
|-----------|------------------|---------------------|----------------------|-------------------|
| A.M. PEAK | Tue May 11, 2010 | 6:00 - 10:00 AM     | 1979                 | 7.1%              |
|           | Wed May 20, 2009 | 6:00 - 10:00 AM     | 2228                 | 6.9%              |
|           | Thu Nov 6, 2008  | 6:00 - 10:00 AM     | 2244                 | 9.9%              |
|           |                  |                     |                      |                   |
| P.M. PEAK | Year 2010        | -                   | -                    | -                 |
|           | Year 2009        | -                   | -                    | -                 |
|           | Year 2008        | -                   | -                    | -                 |
|           |                  |                     |                      |                   |

**NOTES:** (a) Morning period of operation from 5:00 to 10:00 AM.

- (b) Evening period of operation from 3:00 to 7:00 PM.
- (c) Data was not collected in 2010 for off-peak direction

### Westbound - A.M.

Route 4 to Alameda County Line

Typical data for 2010 (5)

### PEAK PERIOD (4)

### **PEAK HOUR**

6:00 - 10:00 AM

6:00 - 7:00 AM

| VEHICLES                        | HOV Lane        | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|---------------------------------|-----------------|---------------------|----------|---------------------|
| Motorcycles                     | 103             | 18                  | 38       | 4                   |
| Buses                           | 124             | 14                  | 35       | 3                   |
| Carpools <sup>(1)</sup>         | 3321            | 512                 | 1090     | 108                 |
| Hybrid                          | 365             | 28                  | 85       | 9                   |
| Vanpools                        | 51              | 9                   | 357      | 1                   |
| 1 and 2 Occ. <sup>(2)</sup>     | _               | 18809               |          | 5162                |
| Violators                       | 296             |                     | 62       | _                   |
| TOTAL                           | 4260            | 19390               | 1667     | 5287                |
| PERSONS                         | HOV Lane        | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
| Motorcycles                     | 103             | 18                  | 38       | 4                   |
| Buses                           | 4340            | 490                 | 1225     | 105                 |
| Carpools <sup>(1)</sup>         | 9471            | 1407                | 2981     | 281                 |
| _                               | 365             | 28                  | 85       | 9                   |
| Vanpools                        | 510             | 90                  | 3570     | 10                  |
| 1 and 2 Occ. <sup>(2)</sup>     | _               | 20408               |          | 5491                |
| Violators                       | 413             |                     | 75       |                     |
| TOTAL                           | 15202           | 22441               | 7974     | 5900                |
| RATES                           |                 |                     |          |                     |
| HOV Lane occupancy rate         | 3.6             | persons/veh         | 4.8      | B persons/veh       |
| Mixed Flow occupancy rate       | 1.2 persons/veh |                     | 1.1      | persons/veh         |
| Overall occupancy (incl. buses) | 1.6             | persons/veh         | 2.0      | persons/veh         |
| Violation rate (3) - (HOV Lane) | 6.9             | %                   | 3.7      | <b>7</b> %          |

**NOTES:** (1) 3 or more persons per vehicle & 2 - seater vehicles with 2 persons.

(2) Mixed flow lanes only.

(3) Violation rate = no. of violators in HOV lane x 100%

- (4) HOV lane in operation from 5:00 to 10:00 A.M.
- (5) Observations conducted 5/19/10 east of Hilltop Drive Interchange.

## Eastbound - P.M.

Alameda County Line to Route 4

Typical data for 2010

### PEAK PERIOD (4)

### **PEAK HOUR**

3:00 - 7:00 PM

6:00 - 7:00 PM

| VEHICLES                                      | HOV Lane     | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|---|--------------|---------------------|----------|---------------------|
| Motorcycles                                   | 208          | 13                  | 36       | 1                   |
| Buses   | 137          | 8                   | 43       | 1                   |
| Carpools (1)                                  | 3736         | 509                 | 1032     | 130                 |
| Hybrid  | 358          | 116                 | 105      | 39                  |
| Vanpools                                      | 102          | 15                  | 5        | 1                   |
| 1 and 2 Occ. <sup>(2)</sup>                   | <del>_</del> | 17938               |          | 4628                |
| Violators                                     | 504          | _                   | 111      |                     |
| TOTAL   | 5045         | 18599               | 1332     | 4800                |
| PERSONS                                       | HOV Lane     | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
| Motorcycles                                   | 208          | 13                  | 36       | 1                   |
| Buses   | 4795         | 280                 | 1505     | 35                  |
| Carpools <sup>(1)</sup>                       | 10676        | 1357                | 2987     | 354                 |
| Hybrid  | 358          | 116                 | 105      | 39                  |
| Vanpools                                      | 1020         | 150                 | 50       | 10                  |
| 1 and 2 Occ. <sup>(2)</sup>                   | _            | 20539               |          | 5359                |
| Violators                                     | 795          |                     | 167      |                     |
| TOTAL   | 17852        | 22455               | 4850     | 5798                |
| RATES   |              |                     |          |                     |
| HOV Lane occupancy rate                       | 3.5          | persons/veh         | 3.6      | persons/veh         |
| Mixed Flow occupancy rate                     | 1.2          | persons/veh         | 1.2      | . persons/veh       |
| Overall occupancy (incl. buses)               | 1.7          | persons/veh         | 1.7      | persons/veh         |
| Violation rate <sup>(3) -</sup><br>(HOV Lane) | 10.0 %       |                     | 8.3      | 5 %                 |

**NOTES:** (1) 3 or more persons per vehicle & 2 - seater vehicles with 2 persons.

- (2) Mixed flow lanes only.
- (3) Violation rate = no. of violators in HOV lane x 100%

- (4) HOV lane in operation from 3:00 to 7:00 P.M.
- $(5) \ \ Observations \ conducted \ 5/12/10 \ east \ of \ Hill top \ Drive \ Interchange.$

## **Violation History**

Route 4 to Alameda County Line

### Westbound

**VIOLATION** 

### A.M. PEAK

| DATE             | MONITORED       | VOLUME | RATE  |
|------------------|-----------------|--------|-------|
| Wed May 19, 2010 | 6:00 - 10:00 AM | 4260   | 6.9%  |
| Thu May 21, 2009 | 6:00 - 10:00 AM | 3957   | 6.9%  |
| Thu May 22, 2008 | 6:00 - 10:00 AM | 3539   | 10.4% |
| Thu Oct 18, 2007 | 7:00 - 10:00 AM | 2787   | 10.6% |
| Wed May 24, 2006 | 6:00 - 10:00 AM | 4095   | 10.9% |
| Thu Nov 10, 2005 | 7:00 - 10:00 AM | 2635   | 12.5% |
| Tue Nov 9, 2004  | 7:00 - 10:00 AM | 2507   | 9.2%  |
| Fri May 9, 2003  | 6:00 - 10:00 AM | 4509   | 27.2% |
| Tue Apr 16, 2002 | 7:00 - 10:00 AM | 2656   | 6.4%  |
| Tue Mar 27, 2001 | 6:00 - 10:00 AM | 3640   | 8.7%  |
| Tue Oct 3, 2000  | 7:00 - 10:00 AM | 2643   | 9.5%  |

PERIOD

TOTAL HOVL

#### P.M. PEAK

| Year 2010        | -              | -    | -     |
|------------------|----------------|------|-------|
| Year 2009        | -              | -    | -     |
| Year 2008        | -              | -    | -     |
| Year 2007        | -              | -    | -     |
| Year 2006        | -              | -    | -     |
| Year 2005        | -              | -    | -     |
| Year 2004        | -              | -    | -     |
| Year 2003        | -              | -    | -     |
| Tue May 7, 2002  | 3:00 - 7:00 PM | 1401 | 25.7% |
| Thu Oct 4, 2001  | 3:00 - 7:00 PM | 1432 | 24.2% |
| Thu Apr 13, 2000 | 3:00 - 7:00 PM | 1167 | 37.3% |
|                  |                |      |       |

- **NOTES:** (a) Morning period of operation from 5:00 to 10:00 AM.
  - (b) Evening period of operation from 3:00 to 7:00 PM.
  - (c) Data was not collected in 2010 for off-peak direction

## **Violation History**

Alameda County Line to Route 4

### **Eastbound**

**VIOLATION** 

### A.M. PEAK

| DATE             | MONITORED       | VOLUME | RATE  |
|------------------|-----------------|--------|-------|
| Year 2010        |                 |        |       |
| Year 2009        | -               | -      | -     |
| Year 2008        | -               | -      | -     |
| Year 2007        | -               | -      | -     |
| Year 2006        | -               | -      | -     |
| Year 2005        | -               | -      | -     |
| Year 2004        | -               | -      | -     |
| Year 2003        | -               | -      | -     |
| Tue Apr 23, 2002 | 6:00 - 10:00 AM | 632    | 19.8% |
| Tue May 15, 2001 | 6:00 - 10:00 AM | 553    | 18.3% |
| Thu Dec 14, 2000 | 7:00 - 10:00 AM | 483    | 26.3% |
|                  |                 |        |       |

PERIOD

TOTAL HOVL

### P.M. PEAK

| Wed May 12, 2010 | 3:00 - 7:00 PM | 5045 | 10.0% |
|------------------|----------------|------|-------|
| Tue Sep 22, 2009 | 3:00 - 7:00 PM | 3613 | 9.4%  |
| Thu Oct 9, 2008  | 3:00 - 7:00 PM | 4323 | 2.5%  |
| Tue Apr 24, 2007 | 3:00 - 7:00 PM | 3653 | 2.0%  |
| Tue May 2, 2006  | 3:00 - 7:00 PM | 4580 | 6.7%  |
| Tue Apr 19, 2005 | 3:00 - 7:00 PM | 3897 | 6.4%  |
| Thu Oct 21, 2004 | 3:00 - 6:00 PM | 3214 | 9.3%  |
| Wed May 28, 2003 | 3:00 - 7:00 PM | 4256 | 11.5% |
| Tue Apr 16, 2002 | 3:00 - 7:00 PM | 3921 | 9.0%  |
| Thu Sep 20, 2001 | 3:00 - 7:00 PM | 4649 | 4.4%  |
| Tue Sep 26, 2000 | 3:00 - 7:00 PM | 3780 | 18.0% |
|                  |                |      |       |

**NOTES:** (a) Morning period of operation from 5:00 to 10:00 AM.

<sup>(</sup>b) Evening period of operation from 3:00 to 7:00 PM.

<sup>(</sup>c) Data was not collected in 2010 off-peak direction

## Northbound - P.M.

N/O Marina Vista I/C to Benicia Bridge Toll Plaza

Typical data for 2010 (5)

| D |    | K  | PE | D  |    |    | (4) |
|---|----|----|----|----|----|----|-----|
|   | ⊏₽ | ١n |    | =1 | IU | עי |     |

### **PEAK HOUR**

|   | 3:00 - 6:00 PM |                     | 5:00 -   | 5:00 - 6:00 PM      |  |
|---|----------------|---------------------|----------|---------------------|--|
| VEHICLES                                    | HOV Lane       | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |  |
| Motorcycles                                 | 100            | 15                  | 41       | 4                   |  |
| Buses                                       | 17             | 5                   | 3        | 1                   |  |
| Carpools (1)                                | 232            | 32                  | 91       | 12                  |  |
| Vanpools                                    | 6              | 1                   | 1        | 1                   |  |
| Hybrid / Single Occ. (2)                    | 34             | 10491               | 11       | 3502                |  |
| Violators                                   | 569            |                     | 192      |                     |  |
| TOTAL                                       | 958            | 10544               | 339      | 3520                |  |
| PERSONS                                     | HOV Lane       | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |  |
| Motorcycles                                 | 100            | 15                  | 41       | 4                   |  |
| Buses                                       | 595            | 175                 | 105      | 35                  |  |
| Carpools <sup>(1)</sup>                     | 696            | 96                  | 273      | 36                  |  |
| Vanpools                                    | 60             | 10                  | 10       | 10                  |  |
| Hybrid / Single Occ. (2)                    | 34             | 11547               | 11       | 3845                |  |
| Violators                                   | 1133           | _                   | 383      |                     |  |
| TOTAL                                       | 2618           | 11843               | 823      | 3930                |  |
| RATES                                       |                |                     |          |                     |  |
| HOV Lane occupancy rate                     | 2.7            | persons/veh         | 2.4      | persons/veh         |  |
| Mixed Flow occupancy rate                   | 1.1            | persons/veh         | 1.1      | persons/veh         |  |
| Overall occupancy (incl. buses)             | 1.3            | persons/veh         | 1.2      | 2 persons/veh       |  |
| Violation rate <sup>(3)</sup><br>(HOV Lane) | 59.4           | %                   | 56.6     | S %                 |  |
|   |                |                     |          |                     |  |

- (2) Hybrid HOV lane only/Single and two Occupancy mixed flow lanes only.
- (3) Violation rate = no. of violators in HOV lane x 100% Total no. of vehicles in HOV lane
- (4) HOV lane in operation from 5:00 to 10:00 A.M.
- (5) Observations conducted 3/23/10 at Benicia Bridge Toll Plaza.

## **Violation History**

N/O Marina Vista I/C to Benicia Bridge Toll Plaza

### **Northbound**

**VIOLATION** 

### A.M. PEAK

| DATE             | MONITORED      | VOLUME | RATE  |
|------------------|----------------|--------|-------|
| Year 2010        | -              | -      | -     |
| Thu Apr 23, 2009 | 6:00 - 9:00 AM | 347    | 61.4% |
| Tue Oct 28, 2008 | 6:00 - 9:00 AM | 332    | 3.6%  |
| Thu Sep 6, 2007  | 6:00 - 9:00 AM | 345    | 3.5%  |

**TOTAL HOVL** 

PERIOD

### P.M. PEAK

| Tue Mar 23, 2010 | 3:00 - 6:00 PM | 958 | 59.4% |
|------------------|----------------|-----|-------|
| Wed Apr 22, 2009 | 3:00 - 6:00 PM | 795 | 22.0% |
| Wed Dec 10, 2008 | 3:00 - 6:00 PM | 817 | 12.1% |
| Wed Sep 5, 2007  | 3:00 - 6:00 PM | 870 | 7.8%  |

#### NOTES:

- (a) Morning period of operation from 5:00 to 10:00 AM.
- (b) Evening period of operation from 3:00 to 7:00 PM.

## Southbound - A.M.

Marina Vista I/C to N/O North Main St.

Typical data for 2010 (5)

|                                 | PEAK PERIOD (4)<br>6:00 - 6:00 AM |                     |          | HOUR<br>9:00 AM     |
|---------------------------------|-----------------------------------|---------------------|----------|---------------------|
| VEHICLES                        | HOV Lane                          | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
| Motorcycles                     | 55                                | 48                  | 21       | 13                  |
| Buses                           | 8                                 | 90                  | 2        | 14                  |
| Carpools (1)                    | 3180                              | 986                 | 1266     | 350                 |
| Vanpools                        | 21                                | 82                  | 3        | 38                  |
| Hybrid/Single Occ. (2)          | 161                               | 19550               | 70       | 6448                |
| Violators                       | 41                                |                     | 13       |                     |
| TOTAL                           | 3466                              | 20756               | 1375     | 6863                |
| PERSONS                         | HOV Lane                          | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
| Motorcycles                     | 55                                | 48                  | 21       | 13                  |
| Buses                           | 280                               | 3150                | 70       | 490                 |
| Carpools (1)                    | 6869                              | 1216                | 2823     | 382                 |
| Vanpools                        | 210                               | 820                 | 30       | 380                 |
| Hybrid/Single Occ. (2)          | 161                               | 19550               | 70       | 6448                |
| Violators                       | 41                                |                     | 13       |                     |
| TOTAL                           | 7616                              | 24784               | 3027     | 7713                |
| RATES                           |                                   |                     |          |                     |
| HOV Lane occupancy rate         | 2.2                               | persons/veh         | 2.2      | persons/veh         |
| Mixed Flow occupancy rate       | 1.2 persons/veh                   |                     | 1.1      | persons/veh         |
| Overall occupancy (incl. buses) | 1.3 persons/veh                   |                     | 1.3      | persons/veh         |
| Violation rate (3) (HOV Lane)   | 1.2                               | %                   | 0.9      | %                   |

**NOTES:** (1) Two or more persons per vehicle.

- (2) Hybrid HOV lane only/Single and two Occupancy mixed flow lanes only.
- (3) Violation rate =  $\underline{no. of violators in HOV lane \ x \ 100\%}$

- (4) HOV lane in operation from 5:00 to 9:00 A.M.
- (5) Observations conducted 05/19/10 at Truck Scale.

# CONTRA COSTA-680 Southbound - P.M.

Marina Vista I/C to N/O North Main St.

Typical data for 2010 (5)

| VEHICLES         HOV Lane         Mixed Flow Lanes         HOV Lane         Mixed Flow Lanes           Motorcycles         19         21         8         7           Buses         5         54         1         20           Carpools (1)         820         2181         271         665           Vanpools         4         81         0         24           Hybrid/Single Occ. (2)         32         22498         12         7705           Violators         45         —         8         —           TOTAL         925         24835         300         8421           PERSONS         HOV Lane         Mixed Flow Lanes         HOV Lane         Mixed Flow Lanes         HOV Lane         Mixed Flow Lanes           Carpools (1)         1723         2706         565         863           Vanpools         40         810         0         240           Hybrid/Single Occ. (2)         32         22498         12         7705           Violators         45         —         8         —           TOTAL         2034         27925         628         9515           RATES           HOV Lane oc |                        | PEAK PERIOD (4)<br>3:00 - 6:00 PM |             | LANT LINIOD I LANT |        | HOUR<br>5:00 PM |
|---|------------------------|-----------------------------------|-------------|--------------------|--------|-----------------|
| Buses   5   54   1   20   | VEHICLES               | HOV Lane                          |             | HC                 | V Lane |                 |
| Carpools (1)   820   2181   271   665     Vanpools   4   81   0   24     Hybrid/Single Occ. (2)   32   22498   12   7705     Violators   45   | Motorcycles            | 19                                | 21          |                    | 8      | 7               |
| Vanpools Hybrid/Single Occ. (2)         4         81         0         24           Hybrid/Single Occ. (2)         32         22498         12         7705           Violators         45         —         8         —           TOTAL         925         24835         300         8421           PERSONS           Motorcycles         19         21         8         7           Buses         175         1890         35         700           Carpools (1)         1723         2706         565         863           Vanpools         40         810         0         240           Hybrid/Single Occ. (2)         32         22498         12         7705           Violators         45         —         8         —           TOTAL         2034         27925         628         9515           RATES           HOV Lane occupancy rate         1.1 persons/veh         1.1 persons/veh           Overall occupancy (incl. buses)         1.2 persons/veh         1.2 persons/veh   | Buses                  | 5                                 | 54          |                    | 1      | 20              |
| Hybrid/Single Occ. (2)   32   22498   12   7705     Violators   45  | Carpools (1)           | 820                               | 2181        | <u></u>            | 271    | 665             |
| Violators   45  | Vanpools               | 4                                 | 81          |                    | 0      | 24              |
| Note  | Hybrid/Single Occ. (2) | 32                                | 22498       |                    | 12     | 7705            |
| PERSONS         HOV Lane         Mixed Flow Lanes         HOV Lane         Mixed Flow Lanes           Motorcycles         19         21         8         7           Buses         175         1890         35         700           Carpools (1)         1723         2706         565         863           Vanpools         40         810         0         240           Hybrid/Single Occ. (2)         32         22498         12         7705           Violators         45         —         8         —           TOTAL         2034         27925         628         9515           RATES           HOV Lane occupancy rate         2.2 persons/veh         2.1 persons/veh           Mixed Flow occupancy rate         1.1 persons/veh         1.1 persons/veh           Overall occupancy (incl. buses)         1.2 persons/veh         1.2 persons/veh   | Violators              | 45                                |             |                    | 8      |                 |
| Motorcycles   | TOTAL                  | 925                               | 24835       |                    | 300    | 8421            |
| Buses 175 1890 35 700 Carpools (1) 1723 2706 565 863 Vanpools 40 810 0 240 Hybrid/Single Occ. (2) 32 22498 12 7705 Violators 45 — 8 —  TOTAL 2034 27925 628 9515  RATES  HOV Lane occupancy rate  Mixed Flow occupancy rate  Overall occupancy (incl. buses)  Violatics 104 (3)  Vanpools 40 810 0 240  All 2 persons/veh  1.1 persons/veh  2.1 persons/veh  1.2 persons/veh  1.2 persons/veh   | PERSONS                | HOV Lane                          |             | НС                 | V Lane |                 |
| Carpools (1)   1723   2706   565   863     Vanpools   40   810   0   240     Hybrid/Single Occ. (2)   32   22498   12   7705     Violators   45   —   8   —     TOTAL   2034   27925   628   9515      RATES   HOV Lane occupancy rate   2.2 persons/veh   2.1 persons/veh     Mixed Flow occupancy rate   1.1 persons/veh   1.1 persons/veh     Overall occupancy (incl. buses)   1.2 persons/veh   1.2 persons/veh  | Motorcycles            | 19                                | 21          |                    | 8      | 7               |
| Vanpools         40         810         0         240           Hybrid/Single Occ. (2)         32         22498         12         7705           Violators         45         —         8         —           TOTAL         2034         27925         628         9515           RATES           HOV Lane occupancy rate         2.2 persons/veh         2.1 persons/veh           Mixed Flow occupancy rate         1.1 persons/veh         1.1 persons/veh           Overall occupancy (incl. buses)         1.2 persons/veh         1.2 persons/veh  | Buses                  | 175                               | 1890        |                    | 35     | 700             |
| Hybrid/Single Occ. (2)   32   22498   12   7705   | Carpools (1)           | 1723                              | 2706        |                    | 565    | 863             |
| Violators 45 — 8 —  TOTAL 2034 27925 628 9515  RATES  HOV Lane occupancy rate  Mixed Flow occupancy rate  Overall occupancy (incl. buses)  Violation rate (3)   | Vanpools               | 40                                | 810         |                    | 0      | 240             |
| TOTAL 2034 27925 628 9515  RATES  HOV Lane occupancy rate  Mixed Flow occupancy rate  Overall occupancy (incl. buses)  Violation rate  2034 27925 628 9515  1.1 persons/veh  1.1 persons/veh  1.2 persons/veh  1.2 persons/veh  1.2 persons/veh   | Hybrid/Single Occ. (2) | 32                                | 22498       | <u></u>            | 12     | 7705            |
| HOV Lane occupancy rate  Mixed Flow occupancy rate  Overall occupancy (incl. buses)  Violation rate  1.2 persons/veh 2.1 persons/veh 1.1 persons/veh 1.2 persons/veh 1.2 persons/veh 1.2 persons/veh  | Violators              | 45                                |             |                    | 8      | _               |
| HOV Lane occupancy rate  Mixed Flow occupancy rate  Overall occupancy (incl. buses)  Violation rate  2.2 persons/veh  1.1 persons/veh  1.2 persons/veh  1.2 persons/veh  1.2 persons/veh  | TOTAL                  | 2034                              | 27925       |                    | 628    | 9515            |
| Occupancy rate  Mixed Flow occupancy rate  Overall occupancy (incl. buses)  Violation rate  2.1 persons/ven  1.1 persons/veh  1.2 persons/veh  1.2 persons/veh  1.2 persons/veh   | RATES                  |                                   |             |                    |        |                 |
| Overall occupancy (incl. buses)  Violation rate  1.1 persons/ven 1.1 persons/ven 1.2 persons/veh 1.2 persons/veh 1.2 persons/veh  |                        | 2.2                               | persons/veh |                    | 2.1    | persons/veh     |
| (incl. buses)   |                        | 1.1                               | persons/veh |                    | 1.1    | persons/veh     |
| Violation rate  | (incl. buses)          | 1.2                               | persons/veh |                    | 1.2    | persons/veh     |
| (HOV Lane)  | Violation rate         | 4.9                               | %           |                    | 2.7    | %               |

**NOTES:** (1) Two or more persons per vehicle.

- (2) Hybrid HOV lane only/Single and two Occupancy mixed flow lanes only.
- (3) Violation rate =  $\underline{no. of violators in HOV lane \ x \ 100\%}$

- (4) HOV lane in operation from 3:00 to 7:00 P.M.
- (5) Observations conducted 05/19/10 at Truck Scale.

## **Violation History**

Marina Vista I/C. to N/O North Main St

### **Southtbound**

VIOLATION

### A.M. PEAK

| DATE             | MONITORED      | VOLUME | RATE |
|------------------|----------------|--------|------|
| Wed May 19, 2010 | 6:00 - 9:00 AM | 3466   | 1.2% |
| Year 2009        | -              | -      | -    |
| Thu Nov 13, 2008 | 6:00 - 9:00 AM | 2598   | 1.8% |
| Wed Mar 28, 2007 | 6:00 - 9:00 AM | 2959   | 1.5% |
| Wed Oct 11, 2006 | 6:00 - 9:00 AM | 2727   | 1.0% |
| Tue May 3, 2005  | 6:00 - 9:00 AM | 2387   | 0.9% |
| Wed Oct 6, 2004  | 6:00 - 9:00 AM | 2068   | 2.0% |

TOTAL HOVE

PERIOD

### P.M. PEAK

| Wed May 19, 2010 | 3:00 - 6:00 PM | 925  | 4.9% |
|------------------|----------------|------|------|
| Wed May 20, 2009 | 3:00 - 6:00 PM | 1328 | 0.8% |
| Wed Nov 12, 2008 | 3:00 - 6:00 PM | 1325 | 1.1% |
| Wed Mar 28, 2007 | 3:00 - 6:00 PM | 1378 | 1.5% |
| Wed Oct 25, 2006 | 3:00 - 6:00 PM | 1270 | 1.4% |
| Tue Sep 27, 2005 | 3:00 - 6:00 PM | 1095 | 2.1% |
| Tue Oct 5, 2004  | 3:00 - 6:00 PM | 1083 | 4.2% |

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.

## Northbound - A.M.

Route 242 to Marina Vista I/C

Typical data for 2010 (5)

| <b>PEAK PE</b> | RIOD (4) |
|----------------|----------|
|----------------|----------|

### **PEAK HOUR**

6:00 - 9:00 AM

8:00 - 9:00 AM

| VEHICLES               | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 25       | 9                   | 10       | 2                   |
| Buses                  | 17       | 10                  | 11       | 6                   |
| Carpools (1)           | 419      | 382                 | 168      | 199                 |
| Vanpools               | 0        | 15                  | 0        | 6                   |
| Hybrid/Single Occ. (2) | 23       | 6382                | 13       | 2339                |
| Violators              | 58       |                     | 26       |                     |
| TOTAL                  | 542      | 6798                | 228      | 2552                |

| PERSONS                | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 25       | 9                   | 10       | 2                   |
| Buses                  | 595      | 350                 | 385      | 210                 |
| Carpools (1)           | 930      | 785                 | 372      | 416                 |
| Vanpools               | 0        | 150                 | 0        | 60                  |
| Hybrid/Single Occ. (2) | 23       | 6382                | 13       | 2339                |
| Violators              | 58       |                     | 26       | _                   |
| TOTAL                  | 1631     | 7676                | 806      | 3027                |

#### **RATES**

| HOV Lane occupancy rate         | 3.0 persons/veh | 3.5 persons/veh |
|---------------------------------|-----------------|-----------------|
| Mixed Flow occupancy rate       | 1.1 persons/veh | 1.2 persons/veh |
| Overall occupancy (incl. buses) | 1.3 persons/veh | 1.4 persons/veh |
| Violation rate (3) (HOV Lane)   | 10.7 %          | 11.4 %          |

- (2) Hybrid HOV lane only/Single and two Occupancy mixed flow lanes only.
- (3) Violation rate = no. of violators in HOV lane x 100%Total no. of vehicles in HOV lane
- (4) HOV lane in operation from 5:00 to 9:00 A.M.
- (5) Observations conducted 04/15/10 at Pacheco Boulevard.

## Northbound - P.M.

Route 242 to Marina Vista I/C

Typical data for 2010 (5)

### PEAK PERIOD (4)

### **PEAK HOUR**

3:00 - 6:00 PM

5:00 - 6:00 PM

| VEHICLES               | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 37       | 12                  | 12       | 2                   |
| Buses                  | 4        | 10                  | 1        | 2                   |
| Carpools (1)           | 1289     | 1015                | 400      | 304                 |
| Vanpools               | 27       | 7                   | 1        | 2                   |
| Hybrid/Single Occ. (2) | 44       | 9641                | 15       | 3534                |
| Violators              | 80       |                     | 39       |                     |
| TOTAL                  | 1481     | 10685               | 468      | 3844                |

| PERSONS                | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 37       | 12                  | 12       | 2                   |
| Buses                  | 140      | 350                 | 35       | 70                  |
| Carpools (1)           | 2839     | 2118                | 879      | 633                 |
| Vanpools               | 270      | 70                  | 10       | 20                  |
| Hybrid/Single Occ. (2) | 44       | 9641                | 15       | 3534                |
| Violators              | 80       | _                   | 39       | _                   |
| TOTAL                  | 3410     | 12191               | 990      | 4259                |

#### **RATES**

| HOV Lane occupancy rate                     | 2.3 persons/veh | 2.1 persons/veh |
|---|-----------------|-----------------|
| Mixed Flow occupancy rate                   | 1.1 persons/veh | 1.1 persons/veh |
| Overall occupancy (incl. buses)             | 1.3 persons/veh | 1.2 persons/veh |
| Violation rate <sup>(3)</sup><br>(HOV Lane) | 5.4 %           | 8.3 %           |

- (2) Hybrid HOV lane only/Single and two Occupancy mixed flow lanes only.
- (3) Violation rate = no. of violators in HOV lane x 100% Total no. of vehicles in HOV lane

- (4) HOV lane in operation from 3:00 to 7:00 P.M.
- (5) Observations conducted 04/14/10 at Pacheco Boulevard.

# **Violation History**

Route 242 to Marina Vista I/C.

### Northtbound

**VIOLATION** 

### A.M. PEAK

| DATE             | MONITORED      | VOLUME | RATE  |
|------------------|----------------|--------|-------|
| Thu Apr 15, 2010 | 6:00 - 9:00 AM | 542    | 10.7% |
| Thu Mar 12, 2009 | 6:00 - 9:00 AM | 522    | 0.0%  |
| Wed Nov 12, 2008 | 6:00 - 9:00 AM | 698    | 1.3%  |
| Wed Sep 5, 2007  | 6:00 - 9:00 AM | 479    | 5.8%  |
| Wed Apr 26, 2006 | 6:00 - 9:00 AM | 511    | 13.7% |
| Thu Sep 22, 2005 | 6:00 - 9:00 AM | 560    | 5.5%  |

**PERIOD** 

**TOTAL HOVL** 

### P.M. PEAK

| Wed Apr 14, 2010 | 3:00 - 6:00 PM | 1481 | 5.4% |
|------------------|----------------|------|------|
| Thu May 21, 2009 | 3:00 - 6:00 PM | 2949 | 1.6% |
| Thu Nov 13, 2008 | 3:00 - 6:00 PM | 1701 | 2.4% |
| Tue Oct 30, 2007 | 3:00 - 6:00 PM | 1636 | 7.3% |
| Thu Oct 26, 2006 | 3:00 - 6:00 PM | 1732 | 2.3% |
| Thu Oct 6, 2005  | 3:00 - 6:00 PM | 1910 | 8.8% |

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.

## Southbound - A.M.

Livorna Road to Alcosta Boulevard

Typical data for 2010 (5)

| PF | =Δ | K | PI | FR | 10                  | D | (4) |
|----|----|---|----|----|---------------------|---|-----|
|    |    |   |    |    | $\cdot \cdot \cdot$ | _ |     |

### **PEAK HOUR**

6:00 - 9:00 AM

7:00 - 8:00 AM

| VEHICLES               | HOV Lane | Mixed Flow<br>Lanes | HOV | Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|-----|------|---------------------|
| Motorcycles            | 20       | 5                   | 1   | 0    | 0                   |
| Buses                  | 31       | 34                  | 1   | 1    | 17                  |
| Carpools (1)           | 1752     | 462                 | 67  | 75   | 182                 |
| Vanpools               | 41       | 6                   | (   | 6    | 3                   |
| Hybrid/Single Occ. (2) | 148      | 12099               | 6   | 6    | 4322                |
| Violators              | 76       |                     | 3   | 3    |                     |
| TOTAL                  | 2068     | 12606               | 80  | )1   | 4524                |

| PERSONS                | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 20       | 5                   | 10       | 0                   |
| Buses                  | 1085     | 1190                | 385      | 595                 |
| Carpools (1)           | 3658     | 950                 | 1419     | 376                 |
| Vanpools               | 410      | 60                  | 60       | 30                  |
| Hybrid/Single Occ. (2) | 148      | 12099               | 66       | 4322                |
| Violators              | 76       |                     | 33       | _                   |
| TOTAL                  | 5397     | 14304               | 1973     | 5323                |

#### **RATES**

| HOV Lane occupancy rate                     | 2.6 persons/veh | 2.5 persons/veh |
|---|-----------------|-----------------|
| Mixed Flow occupancy rate                   | 1.1 persons/veh | 1.2 persons/veh |
| Overall occupancy (incl. buses)             | 1.3 persons/veh | 1.4 persons/veh |
| Violation rate <sup>(3)</sup><br>(HOV Lane) | 3.7 %           | 4.1 %           |

- (2) Hybrid HOV lane only/Single and two Occupancy mixed flow lanes only.
- (3) Violation rate = no. of violators in HOV lane x 100% Total no. of vehicles in HOV lane

- (4) HOV lane in operation from 5:00 to 9:00 A.M.
- (5) Observations conducted 04/21/10 at Stone Valley Road.

## Southbound - P.M.

Livorna Road to Alcosta Boulevard

Typical data for 2010 (5)

| PF | ΔK     | <b>PER</b> |     | (4) |
|----|--------|------------|-----|-----|
| ГЬ | $\neg$ |            | IUU |     |

### **PEAK HOUR**

3:00 - 6:00 PM

5:00 - 6:00 PM

| VEHICLES               | HOV Lane | Mixed Flow<br>Lanes |   | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|---|----------|---------------------|
| Motorcycles            | 9        | 2                   |   | 4        | 0                   |
| Buses                  | 21       | 10                  | _ | 10       | 2                   |
| Carpools (1)           | 1995     | 1128                | _ | 928      | 237                 |
| Vanpools               | 12       | 77                  | _ | 2        | 15                  |
| Hybrid/Single Occ. (2) | 60       | 13818               | _ | 30       | 5090                |
| Violators              | 29       |                     |   | 15       |                     |
| TOTAL                  | 2126     | 15035               |   | 989      | 5344                |

| PERSONS                | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 9        | 2                   | 4        | 0                   |
| Buses                  | 735      | 350                 | 350      | 70                  |
| Carpools (1)           | 4113     | 2362                | 1903     | 510                 |
| Vanpools               | 120      | 770                 | 20       | 150                 |
| Hybrid/Single Occ. (2) | 60       | 13818               | 30       | 5090                |
| Violators              | 29       |                     | 15       |                     |
| TOTAL                  | 5066     | 17302               | 2322     | 5820                |

#### **RATES**

| HOV Lane occupancy rate         | 2.4 persons/veh | 2.3 persons/veh |
|---------------------------------|-----------------|-----------------|
| Mixed Flow occupancy rate       | 1.2 persons/veh | 1.1 persons/veh |
| Overall occupancy (incl. buses) | 1.3 persons/veh | 1.3 persons/veh |
| Violation rate (HOV Lane)       | 1.4 %           | 1.5 %           |

- (2) Hybrid HOV lane only/Single and two Occupancy mixed flow lanes only.
- (3) Violation rate = no. of violators in HOV lane x 100% Total no. of vehicles in HOV lane

- (4) HOV lane in operation from 3:00 to 7:00 P.M.
- (5) Observations conducted 04/28/10 at Stone Valley Road.

## Northbound - A.M.

Alcosta Boulevard to Livorna Road

Typical data for 2010 (5)

### PEAK PERIOD (4)

### **PEAK HOUR**

6:00 - 9:00 AM

7:00 - 8:00 AM

| VEHICLES               | HOV Lane | Mixed Flow<br>Lanes | _ | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|---|----------|---------------------|
| Motorcycles            | 25       | 6                   |   | 9        | 3                   |
| Buses                  | 29       | 30                  | _ | 10       | 12                  |
| Carpools (1)           | 1843     | 249                 | _ | 786      | 100                 |
| Vanpools               | 4        | 6                   | _ | 0        | 0                   |
| Hybrid/Single Occ. (2) | 114      | 11916               | _ | 47       | 4527                |
| Violators              | 34       |                     |   | 3        |                     |
| TOTAL                  | 2049     | 12207               |   | 855      | 4642                |

| PERSONS                | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 25       | 6                   | 9        | 3                   |
| Buses                  | 1015     | 1050                | 350      | 420                 |
| Carpools (1)           | 3881     | 523                 | 1672     | 212                 |
| Vanpools               | 40       | 60                  | 0        | 0                   |
| Hybrid/Single Occ. (2) | 114      | 11916               | 47       | 4527                |
| Violators              | 34       |                     | 3        |                     |
| TOTAL                  | 5109     | 13555               | 2081     | 5162                |

#### **RATES**

| HOV Lane occupancy rate         | 2.5 persons/veh | 2.4 persons/veh |
|---------------------------------|-----------------|-----------------|
| Mixed Flow occupancy rate       | 1.1 persons/veh | 1.1 persons/veh |
| Overall occupancy (incl. buses) | 1.3 persons/veh | 1.3 persons/veh |
| Violation rate (HOV Lane)       | 1.7 %           | 0.4 %           |

- (2) Hybrid HOV lane only/Single and two Occupancy mixed flow lanes only.
- (3) Violation rate = no. of violators in HOV lane x 100%Total no. of vehicles in HOV lane
- (4) HOV lane in operation from 5:00 to 9:00 A.M.
- (5) Observations conducted 04/22/10 at Stone Valley Road.

## Northbound - P.M.

Alcosta Boulevard to Livorna Road

Typical data for 2010 (5)

| PF | ΔΚ     | <b>PFR</b> |   | (4) |
|----|--------|------------|---|-----|
|    | $\neg$ | 1 – 11     | w |     |

### **PEAK HOUR**

3:00 - 6:00 PM

3:00 - 4:00 PM

| VEHICLES               | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 35       | 19                  | 5        | 2                   |
| Buses                  | 16       | 37                  | 3        | 24                  |
| Carpools (1)           | 2531     | 615                 | 846      | 303                 |
| Vanpools               | 32       | 10                  | 6        | 3                   |
| Hybrid/Single Occ. (2) | 34       | 12488               | 7        | 4270                |
| Violators              | 53       |                     | 33       |                     |
| TOTAL                  | 2701     | 13169               | 900      | 4602                |

| PERSONS                | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 35       | 19                  | 5        | 2                   |
| Buses                  | 560      | 1295                | 105      | 840                 |
| Carpools (1)           | 5124     | 1287                | 1715     | 623                 |
| Vanpools               | 320      | 100                 | 60       | 30                  |
| Hybrid/Single Occ. (2) | 34       | 12488               | 7        | 4270                |
| Violators              | 53       |                     | 33       |                     |
| TOTAL                  | 6126     | 15189               | 1925     | 5765                |

#### **RATES**

| HOV Lane occupancy rate                     | 2.3 persons/veh | 2.1 persons/veh |
|---|-----------------|-----------------|
| Mixed Flow occupancy rate                   | 1.2 persons/veh | 1.3 persons/veh |
| Overall occupancy (incl. buses)             | 1.3 persons/veh | 1.4 persons/veh |
| Violation rate <sup>(3)</sup><br>(HOV Lane) | 2.0 %           | 3.7 %           |

- (2) Hybrid HOV lane only/Single and two Occupancy mixed flow lanes only.
- (3) Violation rate = no. of violators in HOV lane x 100% Total no. of vehicles in HOV lane

- (4) HOV lane in operation from 3:00 to 7:00 P.M.
- (5) Observations conducted 04/22/10 at Stone Valley Road.

## **Violation History**

Livorna Road to Alcosta Boulevard

### **Southbound**

**VIOLATION** 

| Α. | Μ. | PΕ | ΑK |
|----|----|----|----|
|    |    |    |    |

| DATE             | MONITORED      | VOLUME | RATE |
|------------------|----------------|--------|------|
| Wed Apr 21, 2010 | 6:00 - 9:00 AM | 2068   | 3.7% |
| Wed Oct 7, 2009  | 6:00 - 9:00 AM | 2317   | 4.7% |
| Tue Dec 9, 2008  | 6:00 - 9:00 AM | 2384   | 0.6% |
| Thu Oct 4, 2007  | 6:00 - 9:00 AM | 2838   | 2.2% |
| Thu Jun 8, 2006  | 6:00 - 9:00 AM | 3047   | 7.6% |
| Wed Nov 16, 2005 | 6:00 - 9:00 AM | 2793   | 4.4% |
| Tue Oct 5, 2004  | 6:00 - 9:00 AM | 2118   | 4.5% |
| Thu Apr 3, 2003  | 6:00 - 9:00 AM | 2114   | 0.6% |
| Thu Jun 13, 2002 | 6:00 - 9:00 AM | 2480   | 1.7% |
| Thu Mar 15, 2001 | 6:00 - 9:00 AM | 2609   | 5.3% |
| Thu Apr 6, 2000  | 6:00 - 9:00 AM | 2258   | 2.8% |
|                  |                |        |      |

PERIOD

**TOTAL HOVL** 

#### P.M. PEAK

| Wed Apr 28, 2010 | 3:00 - 6:00 PM | 2126 | 1.4% |
|------------------|----------------|------|------|
| Tue May 19, 2009 | 3:00 - 6:00 PM | 2226 | 2.0% |
| Wed Nov 5, 2008  | 3:00 - 6:00 PM | 2277 | 0.8% |
| Thu Oct 25, 2007 | 3:00 - 6:00 PM | 2889 | 3.4% |
| Wed Sep 20, 2006 | 3:00 - 6:00 PM | 3143 | 1.3% |
| Tue Nov 15, 2005 | 3:00 - 6:00 PM | 2640 | 3.0% |
| Thu Oct 28, 2004 | 3:00 - 6:00 PM | 2527 | 2.6% |
| Tue Apr 8, 2003  | 3:00 - 6:00 PM | 2109 | 2.4% |
| Wed Mar 13, 2002 | 3:00 - 6:00 PM | 2009 | 7.8% |
| Wed May 9, 2001  | 3:00 - 6:00 PM | 1831 | 8.5% |
| Tue Dec 12, 2000 | 3:00 - 6:00 PM | 1337 | 4.3% |

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.

# **Violation History**

Alcosta Boulevard to Livorna Road

### **Northbound**

**VIOLATION** 

| ΑJ | М. | PF | ΑK |
|----|----|----|----|

| DATE             | MONITORED      | VOLUME | RATE |
|------------------|----------------|--------|------|
| Thu Apr 22, 2010 | 6:00 - 9:00 AM | 2049   | 1.7% |
| Wed Mar 11, 2009 | 6:00 - 9:00 AM | 2231   | 0.3% |
| Wed Apr 9, 2008  | 6:00 - 9:00 AM | 1656   | 0.4% |
| Thu Mar 8, 2007  | 6:00 - 9:00 AM | 1847   | 3.9% |
| Wed Sep 13, 2006 | 6:00 - 9:00 AM | 2194   | 2.1% |
| Wed Apr 27, 2005 | 6:00 - 9:00 AM | 1891   | 3.5% |
| Thu Oct 7, 2004  | 6:00 - 9:00 AM | 1899   | 3.0% |
| Tue Oct 21, 2003 | 6:00 - 9:00 AM | 1920   | 5.0% |
| Thu Apr 25, 2002 | 6:00 - 9:00 AM | 1746   | 6.9% |
| Tue Sep 25, 2001 | 6:00 - 9:00 AM | 1681   | 3.0% |
| Thu Nov 2, 2000  | 6:00 - 9:00 AM | 1263   | 7.0% |
|                  |                |        |      |

PERIOD

**TOTAL HOVL** 

#### P.M. PEAK

| Thu Apr 22, 2010 | 3:00 - 6:00 PM | 2701 | 2.0% |
|------------------|----------------|------|------|
| Thu May 14, 2009 | 3:00 - 6:00 PM | 2792 | 1.4% |
| Tue May 20, 2008 | 3:00 - 6:00 PM | 3700 | 1.1% |
| Tue Sep 11, 2007 | 3:00 - 6:00 PM | 3759 | 2.2% |
| Wed Nov 29, 2006 | 3:00 - 6:00 PM | 3757 | 0.9% |
| Tue Apr 26, 2005 | 3:00 - 6:00 PM | 3727 | 3.2% |
| Thu Dec 2, 2004  | 3:00 - 6:00 PM | 3842 | 2.4% |
| Tue Oct 21, 2003 | 3:00 - 6:00 PM | 3677 | 3.4% |
| Wed Nov 20, 2002 | 3:00 - 6:00 PM | 3989 | 4.5% |
| Tue May 8, 2001  | 3:00 - 6:00 PM | 3742 | 5.0% |
| Wed Oct 4, 2000  | 3:00 - 6:00 PM | 4165 | 3.6% |
|                  |                |      |      |

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.

## **MARIN-101**

Route 37 to Mission Road

## Southbound - A.M.

Typical data for 2010 (5)

| <b>PEAK</b> | <b>PERIOD</b> | (4) |
|-------------|---------------|-----|
|-------------|---------------|-----|

### **PEAK HOUR**

6:30 - 8:30 AM

7:30 - 8:30 AM

| VEHICLES               | HOV Lane | Mixed Flow<br>Lanes |   | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|---|----------|---------------------|
| Motorcycles            | 48       | 15                  |   | 29       | 6                   |
| Buses                  | 27       | 9                   | _ | 11       | 3                   |
| Carpools (1)           | 1245     | 412                 | _ | 731      | 171                 |
| Vanpools <sub>_</sub>  | 8        | 2                   | _ | 2        | 0                   |
| Hybrid/Single Occ. (2) | 94       | 8980                | _ | 48       | 4544                |
| Violators              | 19       |                     |   | 3        |                     |
| TOTAL                  | 1441     | 9418                |   | 824      | 4724                |

| PERSONS                | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 48       | 15                  | 29       | 6                   |
| Buses                  | 945      | 315                 | 385      | 105                 |
| Carpools (1)           | 2543     | 889                 | 1495     | 368                 |
| Vanpools               | 80       | 20                  | 20       | 0                   |
| Hybrid/Single Occ. (2) | 94       | 8980                | 48       | 4544                |
| Violators              | 19       | _                   | 3        | _                   |
| TOTAL                  | 3729     | 10219               | 1980     | 5023                |

#### **RATES**

| HOV Lane occupancy rate                     | 2.6 persons/veh | 2.4 persons/veh |
|---|-----------------|-----------------|
| Mixed Flow occupancy rate                   | 1.1 persons/veh | 1.1 persons/veh |
| Overall occupancy (incl. buses)             | 1.3 persons/veh | 1.3 persons/veh |
| Violation rate <sup>(3)</sup><br>(HOV Lane) | 1.3 %           | 0.4 %           |

**NOTES:** (1) Two or more occupants per vehicle.

- (2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only.
- (3) Violation rate = no. of violators in HOV lane x 100%Total no. of vehicles in HOV lane

Total no. of venteres in 110 v ta

- $(4) \ \ HOV\ lane\ in\ operation\ from\ 6:30\ to\ 8:30\ A.M.$
- (5) Observations conducted 04/13/10 at Alameda Del Prado Drive I/C.

## **MARIN-101**

### Northbound - P.M.

Mission Road to Route 37

Typical data for 2010 (5)

### PEAK PERIOD (4)

### **PEAK HOUR**

4:30 - 7:00 PM

4:30 - 5:30 PM

| VEHICLES               | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 54       | 16                  | 18       | 5                   |
| Buses                  | 41       | 29                  | 16       | 6                   |
| Carpools (1)           | 1410     | 848                 | 655      | 259                 |
| Vanpools               | 11       | 4                   | 7        | 1                   |
| Hybrid/Single Occ. (2) | 81       | 12325               | 34       | 5345                |
| Violators              | 20       |                     | 17       |                     |
| TOTAL                  | 1617     | 13222               | 747      | 5616                |

| PERSONS                | HOV Lane | Mixed Flow<br>Lanes | HOV La | Mixed Flow<br>ne Lanes |
|------------------------|----------|---------------------|--------|------------------------|
| Motorcycles            | 54       | 16                  | 18     | 5                      |
| Buses                  | 1435     | 1015                | 560    | 210                    |
| Carpools (1)           | 2866     | 1787                | 1328   | 546                    |
| Vanpools               | 110      | 40                  | 70     | 10                     |
| Hybrid/Single Occ. (2) | 81       | 12325               | 34     | 5345                   |
| Violators              | 20       | _                   | 17     | _                      |
| TOTAL                  | 4566     | 15183               | 2027   | 6116                   |

#### **RATES**

| HOV Lane occupancy rate                     | 2.8 persons/veh | 2.7 persons/veh |
|---|-----------------|-----------------|
| Mixed Flow occupancy rate                   | 1.1 persons/veh | 1.1 persons/veh |
| Overall occupancy (incl. buses)             | 1.3 persons/veh | 1.3 persons/veh |
| Violation rate <sup>(3)</sup><br>(HOV Lane) | 1.2 %           | 2.3 %           |

**NOTES:** (1) Two or more occupants per vehicle.

- (2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only.
- (3) Violation rate = no. of violators in HOV lane x 100% Total no. of vehicles in HOV lane
- (4) HOV lane in operation from 4:30 to 7:00 P.M.
- (5) Observations conducted 04/13/10 at Manuel Freitas Truck Scale.

## **Violation History**

Route 37 to Mission Avenue

#### Southbound

|           | DATE             | PERIOD<br>MONITORED | TOTAL HOVL<br>VOLUME | VIOLATION<br>RATE |
|-----------|------------------|---------------------|----------------------|-------------------|
| A.M. PEAK | Tue Apr 13, 2010 | 6:30 - 8:30 AM      | 1441                 | 1.3%              |
|           | Thu mar 12, 2009 | 6:30 - 8:30 AM      | 1225                 | 1.5%              |
|           | Thu Oct 9, 2008  | 6:30 - 8:30 AM      | 1749                 | 2.0%              |
|           | Thu Sep 13, 2007 | 6:30 - 8:30 AM      | 2141                 | 1.1%              |
|           | Tue Oct 3, 2006  | 6:30 - 8:30 AM      | 2174                 | 1.4%              |
|           | Wed Nov 2, 2005  | 6:30 - 8:30 AM      | 2276                 | 1.3%              |
|           | Wed Nov 3, 2004  | 6:30 - 8:30 AM      | 2343                 | 1.9%              |
|           | Thu Apr 3, 2003  | 6:30 - 8:30 AM      | 2335                 | 2.2%              |
|           | Tue Mar 19, 2002 | 6:30 - 8:30 AM      | 2564                 | 1.2%              |
|           | Wed Oct 31, 2001 | 6:30 - 8:30 AM      | 2520                 | 1.4%              |
|           | Wed Mar 22, 2000 | 6:30 - 8:30 AM      | 2610                 | 1.1%              |

NOTES: (a) Minimum occupancy requirement was reduced to 2 persons per vehicle on October 1, 1988

<sup>(</sup>b) Morning period of operation from 6:30 to 8:30 AM.

## **Violation History**

Mission Avenue to Route 37

#### **Northbound**

|              | DATE                 | PERIOD<br>MONITORED | TOTAL HOVL<br>VOLUME | VIOLATION<br>RATE |
|--------------|----------------------|---------------------|----------------------|-------------------|
| P.M. PEAK    | <br>Tue Apr 13, 2010 | 4:30 - 7:00 PM      | 1617                 | 1.2%              |
| I IIII I LAN | Thu Oct 1, 2009      | 4:30 - 7:00 PM      | 2219                 | 1.3%              |
|              | Thu Apr 3, 2008      | 4:30 - 7:00 PM      | 1724                 | 0.9%              |
|              | Thu Sep 13, 2007     | 4:30 - 7:00 PM      | 1874                 | 1.1%              |
|              | Wed Apr 5, 2006      | 4:30 - 7:00 PM      | 1559                 | 2.2%              |
|              | Thu Apr 21, 2005     | 4:30 - 7:00 PM      | 1545                 | 4.0%              |
|              | Thu Oct 7, 2004      | 4:30 - 7:00 PM      | 1577                 | 2.5%              |
|              | Wed Apr 9, 2003      | 4:30 - 7:00 PM      | 1851                 | 3.2%              |
|              | Thu Sep 19, 2002     | 4:30 - 7:00 PM      | 1552                 | 2.6%              |
|              | Tue Sep 18, 2001     | 4:30 - 7:00 PM      | 1580                 | 1.1%              |
|              | Tue Mar 21, 2000     | 4:30 - 7:00 PM      | 1921                 | 2.7%              |

NOTES: (a) Minimum occupancy requirement was reduced to 2 persons per vehicle on October 1, 1988

<sup>(</sup>b) Evening period of operation from 4:30 to 7:00 PM.

### Southbound - A.M.

Mission Road to Richardson Bay Bridge

Typical data for 2010 (5)

| PF | =Δ | K | PI | FR | 10                  | D | (4) |
|----|----|---|----|----|---------------------|---|-----|
|    |    |   |    |    | $\cdot \cdot \cdot$ | _ |     |

#### **PEAK HOUR**

6:30 - 8:30 AM

7:30 - 8:30 AM

| VEHICLES               | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 45       | 13                  | 27       | 9                   |
| Buses                  | 28       | 38                  | 18       | 19                  |
| Carpools (1)           | 561      | 588                 | 301      | 345                 |
| Vanpools               | 10       | 3                   | 5        | 2                   |
| Hybrid/Single Occ. (2) | 84       | 8481                | 50       | 4367                |
| Violators              | 15       |                     | 9        |                     |
| TOTAL                  | 743      | 9123                | 410      | 4742                |

| PERSONS               | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|-----------------------|----------|---------------------|----------|---------------------|
| Motorcycles           | 45       | 13                  | 27       | 9                   |
| Buses                 | 980      | 1330                | 630      | 665                 |
| Carpools (1)          | 1168     | 1241                | 624      | 731                 |
| Vanpools              | 100      | 30                  | 50       | 20                  |
| HybridSingle Occ. (2) | 84       | 8481                | 50       | 4367                |
| Violators             | 15       |                     | 9        |                     |
| TOTAL                 | 2392     | 11095               | 1390     | 5792                |

#### **RATES**

| HOV Lane occupancy rate                     | 3.2 persons/veh | 3.4 persons/veh |
|---|-----------------|-----------------|
| Mixed Flow occupancy rate                   | 1.2 persons/veh | 1.2 persons/veh |
| Overall occupancy (incl. buses)             | 1.4 persons/veh | 1.4 persons/veh |
| Violation rate <sup>(3)</sup><br>(HOV Lane) | 2.0 %           | 2.2 %           |

- (2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only.
- (3) Violation rate = no. of violators in HOV lane x 100%Total no. of vehicles in HOV lane
- (4) HOV lane in operation from 6:30 to 8:30 A.M.
- (5) Observations conducted 04/14/10 at Route 131, E. Blithdale Ave. I/C.

### Northbound - P.M.

Richardson Bay Bridge to Mission Road

Typical data for 2010 (5)

#### PEAK PERIOD (4)

#### **PEAK HOUR**

4:30 - 7:00 PM

4:30 -5:30 PM

| VEHICLES               | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 55       | 31                  | 29       | 13                  |
| Buses                  | 63       | 37                  | <br>30   | 13                  |
| Carpools (1)           | 1097     | 1363                | <br>515  | 558                 |
| Vanpools               | 8        | 2                   | <br>5    | 1                   |
| Hybrid/Single Occ. (2) | 81       | 10406               | <br>40   | 4320                |
| Violators              | 21       |                     | 21       |                     |
| TOTAL                  | 1325     | 11839               | 640      | 4905                |

| PERSONS               | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|-----------------------|----------|---------------------|----------|---------------------|
| Motorcycles           | 55       | 31                  | 29       | 13                  |
| Buses                 | 2205     | 1295                | 1050     | 455                 |
| Carpools (1)          | 2240     | 2884                | 1062     | 1182                |
| Vanpools              | 80       | 20                  | 50       | 10                  |
| HybridSingle Occ. (2) | 81       | 10406               | 40       | 4320                |
| Violators             | 21       | _                   | 21       | _                   |
| TOTAL                 | 4682     | 14636               | 2252     | 5980                |

#### **RATES**

| HOV Lane occupancy rate                     | 3.5 persons/veh | 3.6 persons/veh |
|---|-----------------|-----------------|
| Mixed Flow occupancy rate                   | 1.2 persons/veh | 1.2 persons/veh |
| Overall occupancy (incl. buses)             | 1.5 persons/veh | 1.5 persons/veh |
| Violation rate <sup>(3)</sup><br>(HOV Lane) | 1.6 %           | 3.3 %           |

**NOTES:** (1) Two or more occupants per vehicle.

- (2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only.
- (3) Violation rate = no. of violators in HOV lane x 100%Total no. of vehicles in HOV lane

Total no. of venicles in 110 v i

- $(4) \ \ HOV\ lane\ in\ operation\ from\ 4:30\ to\ 7:00\ P.M.$
- (5) Observations conducted 04/15/10 at Route 131, E. Blithdale Ave. I/C.

## **Violation History**

Mission Avenue to Richardson Bay Bridge

#### Southbound

|           | DATE                              | PERIOD<br>MONITORED | TOTAL HOVL<br>VOLUME | VIOLATION<br>RATE |
|-----------|-----------------------------------|---------------------|----------------------|-------------------|
| A.M. PEAK | Wod Apr 14, 2010                  | 6:30 - 8:30 AM      | 743                  | 2.0%              |
| A.W. FLAN | Wed Apr 14, 2010 Tue June 2, 2009 | 6:30 - 8:30 AM      | 1132                 | 2.1%              |
|           | Wed Oct 15, 2008                  | 6:30 - 8:30 AM      | 1104                 | 1.6%              |
|           | Wed Sep 19, 2007                  | 6:30 - 8:30 AM      | 1159                 | 1.5%              |
|           | Thu Apr 13, 2006                  | 6:30 - 8:30 AM      | 1049                 | 1.4%              |
|           | Thu Mar 3, 2005                   | 6:30 - 8:30 AM      | 1099                 | 3.0%              |
|           | Thu Nov 4, 2004                   | 6:30 - 8:30 AM      | 1015                 | 4.4%              |
|           | Tue Apr 8, 2003                   | 6:30 - 8:30 AM      | 1118                 | 3.4%              |
|           | Wed Mar 20, 2002                  | 6:30 - 8:30 AM      | 1591                 | 1.9%              |
|           | Wed Mar 28, 2001                  | 6:30 - 8:30 AM      | 1495                 | 2.3%              |
|           | Thu Mar 23, 2000                  | 6:30 - 8:30 AM      | 1538                 | 2.8%              |

NOTES: (a) Minimum occupancy requirement was reduced to 2 persons per vehicle on October 1, 1988

<sup>(</sup>b) Morning period of operation from 6:30 to 8:30 AM.

## **Violation History**

Richardson Bay Bridge to Mission Avenue

#### **Northbound**

|           | DATE             | PERIOD<br>MONITORED | TOTAL HOVL<br>VOLUME | VIOLATION<br>RATE |
|-----------|------------------|---------------------|----------------------|-------------------|
| P.M. PEAK | Thu Apr 15, 2010 | 4:30 - 7:00 PM      | 1325                 | 1.6%              |
|           | Thu Sep 24, 2009 | 4:30 - 7:00 PM      | 1848                 | 1.1%              |
|           | Wed Oct 15, 2008 | 4:30 - 7:00 PM      | 1262                 | 1.4%              |
|           | Wed Oct 3, 2007  | 4:30 - 7:00 PM      | 2545                 | 1.2%              |
|           | Thu Apr 6, 2006  | 4:30 - 7:00 PM      | 1781                 | 1.4%              |
|           | Thu Sep 29, 2005 | 4:30 - 7:00 PM      | 1953                 | 1.6%              |
|           | Wed Oct 13, 2004 | 4:30 - 7:00 PM      | 1529                 | 1.9%              |
|           | Wed Apr 16, 2003 | 4:30 - 7:00 PM      | 1370                 | 2.4%              |
|           | Tue Sep 17, 2002 | 4:30 - 7:00 PM      | 1365                 | 1.5%              |
|           | Tue Apr 3, 2001  | 4:30 - 7:00 PM      | 1544                 | 3.9%              |
|           | Tue Oct 3, 2000  | 4:30 - 7:00 PM      | 1771                 | 1.6%              |

NOTES: (a) Minimum occupancy requirement was reduced to 2 persons per vehicle on October 1, 1988

<sup>(</sup>b) Evening period of operation from 4:30 to 7:00 PM.

### Southbound - P.M.

Route 101 (Mountain View) to Route 280

Typical data for 2010 (5)

|              |            |     |         | / 4 \ |
|--------------|------------|-----|---------|-------|
| $\mathbf{n}$ | A 1/       | DED | -       | (4)   |
| $\mathbf{P}$ | $\Delta K$ | PER | 16 )1 ) | ٠,    |
|              | $\neg$     |     | 100     |       |

#### **PEAK HOUR**

3:00 - 6:00 PM

3:00 - 4:00 PM

| VEHICLES               | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 98       | 2                   | 20       | 0                   |
| Buses                  | 15       | 3                   | 4        | 3                   |
| Carpools (1)           | 1873     | 516                 | 564      | 284                 |
| Vanpools               | 2        | 1                   | 0        | 1                   |
| Hybrid/Single Occ. (2) | 307      | 8894                | 57       | 3537                |
| Violators              | 54       |                     | 42       | _                   |
| TOTAL                  | 2349     | 9416                | 687      | 3825                |

| PERSONS                | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 98       | 2                   | 20       | 0                   |
| Buses                  | 525      | 105                 | 140      | 105                 |
| Carpools (1)           | 3864     | 1075                | 1170     | 593                 |
| Vanpools               | 20       | 10                  | 0        | 10                  |
| Hybrid/Single Occ. (2) | 307      | 8894                | 57       | 3537                |
| Violators              | 54       | _                   | 42       |                     |
| TOTAL                  | 4868     | 10086               | 1429     | 4245                |

#### **RATES**

| HOV Lane occupancy rate         | 2.1 persons/veh | 2.1 persons/veh |
|---------------------------------|-----------------|-----------------|
| Mixed Flow occupancy rate       | 1.1 persons/veh | 1.1 persons/veh |
| Overall occupancy (incl. buses) | 1.3 persons/veh | 1.3 persons/veh |
| Violation rate (HOV Lane)       | 2.3 %           | 6.1 %           |

- (2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only
- (3) Violation rate = no. of violators in HOV lane x 100% Total no. of vehicles in HOV lane

- (4) HOV lane in operation from 3:00 to 7:00 P.M.
- (5) Observations conducted 03/16/10 at Fremont Avenue I/C

### Northbound - A.M.

Route 280 to Route 101 (Mountain View)

Typical data for 2010 (5)

| D |    | K  | PE | D  |    |    | (4) |
|---|----|----|----|----|----|----|-----|
|   | ⊏₽ | ١n |    | =1 | IU | עי |     |

#### **PEAK HOUR**

6:00 - 9:00 AM

8:00 - 9:00 AM

| VEHICLES               | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 86       | 13                  | 40       | 5                   |
| Buses                  | 19       | 0                   | 11       | 0                   |
| Carpools (1)           | 1265     | 347                 | 674      | 125                 |
| Vanpools               | 6        | 4                   | 3        | 1                   |
| Hybrid/Single Occ. (2) | 241      | 10230               | 134      | 3616                |
| Violators              | 26       |                     | 11       |                     |
| TOTAL                  | 1643     | 10594               | 873      | 3747                |

| PERSONS                | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 86       | 13                  | 40       | 5                   |
| Buses                  | 665      | 0                   | 385      | 0                   |
| Carpools (1)           | 2636     | 777                 | 1411     | 278                 |
| Vanpools               | 60       | 40                  | 30       | 10                  |
| Hybrid/Single Occ. (2) | 241      | 10230               | 134      | 3616                |
| Violators              | 26       | _                   | 11       | _                   |
| TOTAL                  | 3714     | 11060               | 2011     | 3909                |

#### **RATES**

| HOV Lane occupancy rate                     | 2.3 persons/veh | 2.3 persons/veh |
|---|-----------------|-----------------|
| Mixed Flow occupancy rate                   | 1.0 persons/veh | 1.0 persons/veh |
| Overall occupancy (incl. buses)             | 1.2 persons/veh | 1.3 persons/veh |
| Violation rate <sup>(3)</sup><br>(HOV Lane) | 1.6 %           | 1.3 %           |

**NOTES:** (1) Two or more occupants per vehicle.

- (2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only
- (3) Violation rate =  $\underline{no. of violators in HOV lane \ x \ 100\%}$

Total no. of vehicles in HOV lane

- (4) HOV lane in operation from 5:00 to 9:00 A.M.
- (5) Observations conducted 04/15/10 at Fremont Avenue I/C

### **Violation History**

Route 101 (Mountain View) to Route 280

#### **Southbound**

**VIOLATION** 

#### A.M. PEAK

| DATE             | MONITORED      | VOLUME | RATE  |
|------------------|----------------|--------|-------|
| Year 2010        | -              | -      | -     |
| Year 2009        | -              | -      | -     |
| Year 2008        | -              | -      | -     |
| Year 2007        | -              | -      | -     |
| Year 2006        | -              | -      | -     |
| Year 2005        | -              | -      | -     |
| Year 2004        | -              | -      | -     |
| Year 2003        | -              | -      | -     |
| Wed Oct 23, 2002 | 7:00 - 9:00 AM | 540    | 10.0% |
| Thu Jun 7, 2001  | 6:00 - 9:00 AM | 560    | 4.1%  |
| Wed Sep 27, 2000 | 6:00 - 9:00 AM | 604    | 13.2% |

**PERIOD** 

**TOTAL HOVL** 

#### P.M. PEAK

| Wed Mar 10, 2010 | 3:00 - 6:00 PM | 2349 | 2.3% |
|------------------|----------------|------|------|
| Thu Apr 30, 2009 | 3:00 - 6:00 PM | 2409 | 1.9% |
| Tue Sep 30, 2008 | 3:00 - 6:00 PM | 2853 | 2.7% |
| Wed Dec 12, 2007 | 3:00 - 6:00 PM | 2947 | 4.0% |
| Tue Oct 24, 2006 | 3:00 - 6:00 PM | 2164 | 0.5% |
| Wed Oct 12, 2005 | 3:00 - 6:00 PM | 2265 | 0.7% |
| Tue Nov 30, 2004 | 3:00 - 5:15 PM | 1510 | 0.7% |
| Wed Jun 4, 2003  | 3:00 - 6:00 PM | 2323 | 1.6% |
| Wed May 29, 2002 | 3:00 - 6:00 PM | 2647 | 4.4% |
| Tue Sep 25, 2001 | 3:00 - 6:00 PM | 2656 | 6.4% |
| Thu Jun 1, 2000  | 3:00 - 6:00 PM | 2792 | 0.9% |
|                  |                |      |      |

- **NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.
  - (b) Evening period of operation from 3:00 to 7:00 PM.
  - (c) Data was not collected in 2010 off-peak direction

### **Violation History**

Route 280 to Route 101 (Mountain View)

#### **Northbound**

**VIOLATION** 

#### A.M. PEAK

| DATE             | MONITORED      | VOLUME | RATE  |
|------------------|----------------|--------|-------|
| Thu Apr 15, 2010 | 6:00 - 9:00 AM | 1643   | 1.6%  |
| Tue May 12, 2009 | 6:00 - 9:00 AM | 2527   | 1.8%  |
| Wed Dec 10, 2008 | 6:00 - 9:00 AM | 2168   | 2.0%  |
| Tue Apr 17, 2007 | 6:00 - 9:00 AM | 2722   | 0.0%  |
| Wed Oct 11, 2006 | 6:00 - 9:00 AM | 2501   | 0.7%  |
| Tue Oct 18, 2005 | 6:00 - 9:00 AM | 1703   | 3.0%  |
| Wed Nov 3, 2004  | 6:00 - 9:00 AM | 2132   | 0.7%  |
| Wed Oct 29, 2003 | 6:00 - 9:00 AM | 1151   | 0.8%  |
| Tue Oct 8, 2002  | 7:00 - 9:00 AM | 1435   | 1.5%  |
| Tue Apr 10, 2001 | 6:00 - 9:00 AM | 2471   | 1.8%  |
| Tue Oct 17, 2000 | 7:00 - 9:00 AM | 2188   | 10.1% |
|                  |                |        |       |

**PERIOD** 

**TOTAL HOVL** 

#### P.M. PEAK

| Year 2010        | -              | -    | -    |
|------------------|----------------|------|------|
| Year 2009        | -              | -    | -    |
| Year 2008        | -              | -    | -    |
| Year 2007        | -              | -    | -    |
| Year 2006        | -              | -    | -    |
| Year 2005        | -              | -    | -    |
| Year 2004        | -              | -    | -    |
| Year 2003        | -              | -    | -    |
| Thu Oct 31, 2002 | 3:00 - 5:30 PM | 761  | 2.2% |
| Wed Oct 10, 2001 | 3:00 - 6:00 PM | 1124 | 0.4% |
| Thu May 4, 2000  | 3:00 - 6:00 PM | 940  | 2.1% |
|                  |                |      |      |

- **NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.
  - (b) Evening period of operation from 3:00 to 7:00 PM.
  - (c) Data was not collected in 2010 for off-peak direction

### Southbound - P.M.

Route 280 to Almaden Expressway

Typical data for 2010 (5)

| PF                    | ΔK  | <b>PER</b> | IOD | (4) |
|-----------------------|-----|------------|-----|-----|
| $\Gamma \perp \prime$ | 717 |            | IUU |     |

#### **PEAK HOUR**

3:00 - 6:00 PM

4:00 - 5:00 PM

| VEHICLES               | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 56       | 21                  | 21       | 8                   |
| Buses                  | 10       | 4                   | 1        | 1                   |
| Carpools (1)           | 1902     | 577                 | 732      | 389                 |
| Vanpools               | 5        | 0                   | 2        | 0                   |
| Hybrid/Single Occ. (2) | 182      | 10066               | 63       | 3706                |
| Violators              | 52       |                     | 2        |                     |
| TOTAL                  | 2207     | 10668               | 821      | 4104                |

| PERSONS                 | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|-------------------------|----------|---------------------|----------|---------------------|
| Motorcycles             | 56       | 21                  | 21       | 8                   |
| Buses                   | 350      | 140                 | 35       | 35                  |
| Carpools <sup>(1)</sup> | 3900     | 1238                | 1515     | 809                 |
| Vanpools                | 50       | 0                   | 20       | 0                   |
| Hybrid/Single Occ. (2)  | 182      | 10066               | 63       | 3706                |
| Violators               | 52       |                     | 2        | _                   |
| TOTAL                   | 4590     | 11465               | 1656     | 4558                |

#### **RATES**

| HOV Lane occupancy rate                     | 2.1 persons/veh | 2.0 persons/veh |
|---|-----------------|-----------------|
| Mixed Flow occupancy rate                   | 1.1 persons/veh | 1.1 persons/veh |
| Overall occupancy (incl. buses)             | 1.2 persons/veh | 1.3 persons/veh |
| Violation rate <sup>(3)</sup><br>(HOV Lane) | 2.4 %           | 0.2 %           |

**NOTES:** (1) Two or more occupants per vehicle.

- (2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only
- (3) Violation rate =  $\underline{no. of violators in HOV lane \ x \ 100\%}$

Total no. of vehicles in HOV lane

- (4) HOV lane in operation from 3:00 to 7:00 P.M.
- (5) Observations conducted 05/26/10 at Winchester Boulevard I/C

### Northbound - A.M.

Almaden Expressway to Route 280

Typical data for 2010 (5)

|    | N 1/ | DED |   | (4) |
|----|------|-----|---|-----|
| PE | 4 N  | PER | W | ` ' |

#### **PEAK HOUR**

6:00 - 9:00 AM

7:00 - 8:00 AM

| VEHICLES               | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 14       | 6                   | 9        | 1                   |
| Buses                  | 9        | 4                   | 5        | 0                   |
| Carpools (1)           | 1553     | 234                 | 677      | 71                  |
| Vanpools <sub>_</sub>  | 3        | 4                   | 1        | 3                   |
| Hybrid/Single Occ. (2) | 119      | 11791               | 53       | 4186                |
| Violators              | 45       |                     | 9        |                     |
| TOTAL                  | 1743     | 12039               | 745      | 4261                |

| PERSONS                | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 14       | 6                   | 9        | 1                   |
| Buses                  | 315      | 140                 | 175      | 0                   |
| Carpools (1)           | 3160     | 487                 | 1369     | 149                 |
| Vanpools               | 30       | 40                  | 10       | 30                  |
| Hybrid/Single Occ. (2) | 119      | 11791               | 53       | 4186                |
| Violators              | 45       | _                   | 9        |                     |
| TOTAL                  | 3683     | 12464               | 1616     | 4366                |

#### **RATES**

| HOV Lane occupancy rate         | 2.1 persons/veh | 2.2 persons/veh |
|---------------------------------|-----------------|-----------------|
| Mixed Flow occupancy rate       | 1.0 persons/veh | 1.0 persons/veh |
| Overall occupancy (incl. buses) | 1.2 persons/veh | 1.2 persons/veh |
| Violation rate (HOV Lane)       | 2.6 %           | 1.2 %           |

- (2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only
- (3) Violation rate = no. of violators in HOV lane x 100%Total no. of vehicles in HOV lane
- (4) HOV lane in operation from 5:00 to 9:00 A.M.
- (5) Observations conducted 04/27/10 at Union Avenue I/C

## **Violation History**

Route 280 to Almaden Expressway

#### **Southbound**

**VIOLATION** 

#### A.M. PEAK

| DATE             | MONITORED      | VOLUME | RATE |
|------------------|----------------|--------|------|
| Year 2010        | -              | -      | -    |
| Year 2009        | -              | -      | -    |
| Year 2008        | -              | -      | -    |
| Year 2007        | -              | -      | -    |
| Year 2006        | -              | -      | -    |
| Year 2005        | -              | -      | -    |
| Year 2004        | -              | -      | -    |
| Year 2003        | -              | -      | -    |
| Wed May 1, 2002  | 6:00 - 9:00 AM | 256    | 9.0% |
| Tue Apr 17, 2001 | 6:00 - 9:00 AM | 341    | 5.9% |
| Tue May 2, 2000  | 6:00 - 9:00 AM | 363    | 1.7% |

**PERIOD** 

**TOTAL HOVL** 

#### P.M. PEAK

| Wed May 26, 2010 | 3:00 - 6:00 PM | 2207 | 2.4% |
|------------------|----------------|------|------|
| Wed Apr 1, 2009  | 3:00 - 6:00 PM | 2998 | 1.2% |
| Tue Apr 22, 2008 | 3:00 - 6:00 PM | 3226 | 4.0% |
| Tue Dec 4, 2007  | 3:00 - 6:00 PM | 3259 | 1.1% |
| Tue May 16, 2006 | 3:00 - 6:00 PM | 2429 | 0.2% |
| Thu Oct 13, 2005 | 3:00 - 6:00 PM | 2311 | 0.9% |
| Wed Oct 6, 2004  | 3:00 - 6:00 PM | 2288 | 0.5% |
| Wed Oct 22, 2003 | 3:00 - 6:00 PM | 2151 | 2.3% |
| Wed Mar 13, 2002 | 3:00 - 6:00 PM | 2866 | 3.4% |
| Thu Apr 5, 2001  | 3:00 - 6:00 PM | 2798 | 0.5% |
| Tue Apr 18, 2000 | 3:00 - 6:00 PM | 3056 | 0.5% |
|                  |                |      |      |

- **NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.
  - (b) Evening period of operation from 3:00 to 7:00 PM.
  - (c) Data was not collected in 2010 for off-peak direction

### **Violation History**

Almaden Expressway to Route 280

#### **Northbound**

**VIOLATION** 

### A.M. PEAK

| DATE              | MONITORED      | VOLUME | RATE |
|-------------------|----------------|--------|------|
| Tue Apr 27, 2010  | 6:00 - 9:00 AM | 1743   | 2.6% |
| Wed Mar 25, 2009  | 6:00 - 9:00 AM | 2721   | 2.5% |
| Thu May 1, 2008   | 6:00 - 9:00 AM | 2421   | 1.1% |
| Thu Nov 1, 2007   | 6:00 - 9:00 AM | 2564   | 2.5% |
| Wed Sep 27, 2006  | 6:00 - 9:00 AM | 3298   | 1.2% |
| Thu Oct 6, 2005   | 6:00 - 9:00 AM | 2418   | 0.4% |
| Thu Oct 28, 2004  | 7:00 - 9:00 AM | 1813   | 0.4% |
| Wed Oct 22, 2003  | 7:00 - 9:00 AM | 2012   | 0.0% |
| Wed Mar 27, 2002  | 6:00 - 9:00 AM | 2572   | 4.6% |
| Tues Oct 16, 2001 | 6:00 - 9:00 AM | 3298   | 6.4% |
| Wed Jun 7, 2000   | 6:00 - 9:00 AM | 3555   | 9.9% |

**PERIOD** 

**TOTAL HOVL** 

#### P.M. PEAK

| Year 2010        | -              | -    | -    |
|------------------|----------------|------|------|
| Year 2009        | -              | -    | -    |
| Year 2008        | -              | -    | -    |
| Year 2007        | -              | -    | -    |
| Year 2006        | -              | -    | -    |
| Year 2005        | -              | -    | -    |
| Year 2004        | -              | -    | -    |
| Year 2003        | -              | -    | -    |
| Thu Apr 4, 2002  | 3:00 - 6:00 PM | 1068 | 7.5% |
| Tue Jun 12, 2001 | 3:00 - 6:00 PM | 985  | 8.9% |
| Tue Oct 17, 2000 | 3:00 - 6:00 PM | 642  | 3.6% |
|                  |                |      |      |

- **NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.
  - (b) Evening period of operation from 3:00 to 7:00 PM.
  - (c) Data was not collected in 2010 for off-peak direction

### Southbound - P.M.

Almaden Expressway to Route 101 (So. San Jose)

Typical data for 2010 (5)

| P | F | ١K | PFR |     | (4) |
|---|---|----|-----|-----|-----|
|   |   | ~  |     | NOD |     |

#### **PEAK HOUR**

3:00 - 6:00 PM

5:00 - 6:00 PM

| VEHICLES               | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 51       | 16                  | 18       | 5                   |
| Buses                  | 8        | 11                  | 1        | 1                   |
| Carpools (1)           | 1667     | 705                 | 715      | 167                 |
| Vanpools               | 7        | 13                  | 1        | 0                   |
| Hybrid/Single Occ. (2) | 78       | 9926                | 43       | 3574                |
| Violators              | 28       |                     | 2        |                     |
| TOTAL                  | 1839     | 10671               | 780      | 3747                |

| PERSONS                 | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|-------------------------|----------|---------------------|----------|---------------------|
| Motorcycles             | 51       | 16                  | 18       | 5                   |
| Buses                   | 280      | 385                 | 35       | 35                  |
| Carpools <sup>(1)</sup> | 3375     | 1557                | 1450     | 380                 |
| Vanpools                | 70       | 130                 | 10       | 0                   |
| Hybrid/Single Occ. (2)  | 78       | 9926                | 43       | 3574                |
| Violators               | 28       | _                   | 2        | _                   |
| TOTAL                   | 3882     | 12014               | 1558     | 3994                |

#### **RATES**

| HOV Lane occupancy rate         | 2.1 persons/veh | 2.0 persons/veh |
|---------------------------------|-----------------|-----------------|
| Mixed Flow occupancy rate       | 1.1 persons/veh | 1.1 persons/veh |
| Overall occupancy (incl. buses) | 1.3 persons/veh | 1.2 persons/veh |
| Violation rate (3) (HOV Lane)   | 1.5 %           | 0.3 %           |

**NOTES:** (1) Two or more occupants per vehicle.

- (2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only
- (3) Violation rate =  $\underline{no. of violators in HOV lane \ x \ 100\%}$

Total no. of vehicles in HOV lane

- (4) HOV lane in operation from 3:00 to 7:00 P.M.
- (5) Observations conducted 05/18/10 at Blossom Hill Road I/C

### Northbound - A.M.

Route 101(So. San Jose) to Almaden Expressway

Typical data for 2010 (5)

### PEAK PERIOD (4)

#### **PEAK HOUR**

6:00 - 9:00 AM

7:00 - 8:00 AM

| VEHICLES               | HOV Lane | Mixed Flow<br>Lanes | _ | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|---|----------|---------------------|
| Motorcycles            | 13       | 22                  | _ | 7        | 4                   |
| Buses                  | 3        | 5                   | _ | 1        | 0                   |
| Carpools (1)           | 1479     | 538                 | _ | 674      | 234                 |
| Vanpools               | 1        | 9                   | _ | 1        | 3                   |
| Hybrid/Single Occ. (2) | 70       | 9380                | _ | 38       | 3314                |
| Violators              | 6        |                     | _ | 1        |                     |
| TOTAL                  | 1572     | 9954                |   | 722      | 3555                |

| PERSONS                 | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|-------------------------|----------|---------------------|----------|---------------------|
| Motorcycles             | 13       | 22                  | 7        | 4                   |
| Buses                   | 105      | 175                 | 35       | 0                   |
| Carpools <sup>(1)</sup> | 3100     | 1201                | 1406     | 524                 |
| Vanpools                | 10       | 90                  | 10       | 30                  |
| Hybrid/Single Occ. (2)  | 70       | 9380                | 38       | 3314                |
| Violators               | 6        | _                   | 1        | _                   |
| TOTAL                   | 3304     | 10868               | 1497     | 3872                |

#### **RATES**

| HOV Lane                        | 0.4             | 0.4             |
|---------------------------------|-----------------|-----------------|
| occupancy rate                  | 2.1 persons/veh | 2.1 persons/veh |
| Mixed Flow occupancy rate       | 1.1 persons/veh | 1.1 persons/veh |
| Overall occupancy (incl. buses) | 1.2 persons/veh | 1.3 persons/veh |
| Violation rate (3) (HOV Lane)   | 0.4 %           | 0.1 %           |

- (2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only
- (3) Violation rate = no. of violators in HOV lane x 100% Total no. of vehicles in HOV lane
- (4) HOV lane in operation from 5:00 to 9:00 A.M.
- (5) Observations conducted 04/21/10 at Blossom Hill Road Train Station

### **Violation History**

Almaden Expressway to Route 101 (So. San Jose)

#### **Southbound**

**VIOLATION** 

| _  |    |    |    |
|----|----|----|----|
| Α. | М. | PE | ΑK |

| DATE             | MONITORED      | VOLUME | RATE |
|------------------|----------------|--------|------|
| Year 2010        | -              | -      | -    |
| Year 2009        | -              | -      | -    |
| Year 2008        | -              | -      | -    |
| Year 2007        | -              | -      | -    |
| Year 2006        | -              | -      | -    |
| Year 2005        | -              | -      | -    |
| Year 2004        | -              | -      | -    |
| Year 2003        | -              | -      | -    |
| Wed Apr 24, 2002 | 6:00 - 9:00 AM | 675    | 0.3% |
| Wed May 2, 2001  | 6:00 - 9:00 AM | 595    | 1.7% |
| Wed May 3, 2000  | 6:00 - 9:00 AM | 635    | 7.1% |
|                  |                |        |      |

**PERIOD** 

**TOTAL HOVL** 

#### P.M. PEAK

| Tue May 18, 2010 | 3:00 - 6:00 PM | 1839 | 1.5% |
|------------------|----------------|------|------|
| Wed Mar 25, 2009 | 3:00 - 6:00 PM | 2081 | 0.8% |
| Thu May 1, 2008  | 3:00 - 6:00 PM | 2606 | 1.2% |
| Wed Mar 21, 2007 | 3:00 - 6:00 PM | 2005 | 3.2% |
| Thu Apr 20, 2006 | 3:00 - 6:00 PM | 1547 | 3.4% |
| Thu Sep 29, 2005 | 3:00 - 6:00 PM | 1601 | 0.9% |
| Thu Oct 14, 2004 | 3:00 - 6:00 PM | 2050 | 0.2% |
| Thu Jun 5, 2003  | 3:00 - 6:00 PM | 1652 | 0.6% |
| Thu May 2, 2002  | 3:00 - 6:00 PM | 1981 | 3.8% |
| Wed Oct 3, 2001  | 3:00 - 6:00 PM | 2418 | 0.2% |
| Wed Oct 18, 2000 | 3:00 - 6:00 PM | 2354 | 0.6% |
|                  |                |      |      |

- **NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.
  - (b) Evening period of operation from 3:00 to 7:00 PM.
  - (c) Data was not collected in 2010 for off-peak direction

### **Violation History**

Route 101 (So. San Jose) to Almaden Expressway

#### **Northbound**

|           | DATE             | PERIOD<br>MONITORED | TOTAL HOVL<br>VOLUME | VIOLATION<br>RATE |
|-----------|------------------|---------------------|----------------------|-------------------|
| A.M. PEAK | Wed Apr 21, 2010 | 6:00 - 9:00 AM      | 1572                 | 0.4%              |
|           | Wed May 13, 2009 | 6:00 - 9:00 AM      | 1483                 | 1.6%              |
|           | Tue Apr 8, 2008  | 6:00 - 9:00 AM      | 1439                 | 1.1%              |
|           | Tue May 22, 2007 | 6:00 - 9:00 AM      | 1542                 | 0.7%              |
|           | Tue May 23, 2006 | 6:00 - 9:00 AM      | 1131                 | 3.8%              |
|           | Thu Oct 13, 2005 | 6:00 - 9:00 AM      | 960                  | 2.4%              |
|           | Tue Nov 30, 2004 | 6:00 - 9:00 AM      | 1044                 | 0.0%              |
|           | Thu Oct 23, 2003 | 7:00 - 9:00 AM      | 1035                 | 0.0%              |
|           | Tue Mar 12, 2002 | 6:00 - 9:00 AM      | 939                  | 2.6%              |
|           | Thu Apr 12, 2001 | 6:00 - 9:00 AM      | 1678                 | 7.3%              |
|           | Thu Oct 5, 2000  | 7:00 - 9:00 AM      | 1222                 | 5.2%              |
| P.M. PEAK | Year 2010        | _                   |                      | _                 |
|           | Year 2009        | -                   | -                    | -                 |
|           | Year 2008        | -                   | -                    | -                 |
|           | Year 2007        | -                   | -                    | -                 |
|           | Year 2006        | -                   | -                    | -                 |
|           | Year 2005        | -                   | -                    | -                 |
|           | Year 2004        | -                   | -                    | -                 |
|           | Year 2003        | -                   | -                    | -                 |
|           | Wed Apr 24, 2002 | 3:00 - 6:00 PM      | 976                  | 5.0%              |
|           | Tue Oct 9, 2001  | 3:00 - 6:00 PM      | 814                  | 8.6%              |
|           | Wed May 3, 2000  | 3:00 - 6:00 PM      | 784                  | 5.6%              |
|           |                  |                     |                      |                   |

- **NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.
  - (b) Evening period of operation from 3:00 to 7:00 PM.
  - (c) Data was not collected in 2010 for off-peak direction

### Southbound - P.M.

Route 101 I/C to Route 280 I/C

Typical data for 2010 (5)

| DEAK |     |      | (4) |
|------|-----|------|-----|
| PEAN | PER | IUU. |     |

#### **PEAK HOUR**

3:00 - 6:00 PM

5:00 - 6:00 PM

| VEHICLES               | HOV Lane | Mixed Flow<br>Lanes |   | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|---|----------|---------------------|
| Motorcycles            | 15       | 20                  |   | 9        | 0                   |
| Buses                  | 9        | 8                   |   | 3        | 0                   |
| Carpools (1)           | 1253     | 574                 | _ | 610      | 72                  |
| Vanpools               | 4        | 10                  |   | 2        | 0                   |
| Hybrid/Single Occ. (2) | 101      | 10996               |   | 65       | 3970                |
| Violators              | 56       |                     | _ | 7        | _                   |
| TOTAL                  | 1438     | 11608               |   | 696      | 4042                |

| PERSONS                 | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|-------------------------|----------|---------------------|----------|---------------------|
| Motorcycles             | 15       | 20                  | 9        | 0                   |
| Buses                   | 315      | 280                 | 105      | 0                   |
| Carpools <sup>(1)</sup> | 2574     | 1236                | 1259     | 159                 |
| Vanpools                | 40       | 100                 | 20       | 0                   |
| Hybrid/Single Occ. (2)  | 101      | 10996               | 65       | 3970                |
| Violators               | 56       |                     | 7        | _                   |
| TOTAL                   | 3101     | 12632               | 1465     | 4129                |

#### **RATES**

| HOV Lane occupancy rate                     | 2.2 persons/veh | 2.1 persons/veh |
|---|-----------------|-----------------|
| Mixed Flow occupancy rate                   | 1.1 persons/veh | 1.0 persons/veh |
| Overall occupancy (incl. buses)             | 1.2 persons/veh | 1.2 persons/veh |
| Violation rate <sup>(3)</sup><br>(HOV Lane) | 3.9 %           | 1.0 %           |

**NOTES:** (1) Two or more occupants per vehicle.

- (2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only
- (3) Violation rate =  $\underline{\text{no. of violators in HOV lane } x \ 100\%}$

Total no. of vehicles in HOV lane

- (4) HOV lane in operation from 3:00 to 7:00 P.M.
- (5) Observations conducted 05/27/10 at Taylor Avenue I/C

Hybrid/Single Occ. (2)

### Northbound - A.M.

Route 280 I/C to Route 101 I/C

Typical data for 2010 (5)

**PEAK HOUR** 

|              | 6:00 - 9:00 AM |                     | 8:00 - 9:00 AM |          |                     |
|--------------|----------------|---------------------|----------------|----------|---------------------|
| VEHICLES     | HOV Lane       | Mixed Flow<br>Lanes | _              | HOV Lane | Mixed Flow<br>Lanes |
| Motorcycles  | 40             | 3                   |                | 19       | 2                   |
| Buses        | 7              | 4                   | _              | 6        | 3                   |
| Carpools (1) | 1507           | 142                 |                | 572      | 33                  |
| Vanpools     | 13             | 1                   | _              | 6        | 0                   |

PEAK PERIOD (4)

 Violators
 7
 —

 TOTAL
 1701
 4414

127

| 144  | 312 | 33   |
|------|-----|------|
| 1    | 6   | 0    |
| 4264 | 53  | 1521 |
|      | 4   | _    |
| 4414 | 660 | 1559 |
|      |     |      |

| PERSONS                | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 40       | 3                   | 19       | 2                   |
| Buses                  | 245      | 140                 | 210      | 105                 |
| Carpools (1)           | 3082     | 296                 | 1170     | 67                  |
| Vanpools               | 130      | 10                  | 60       | 0                   |
| Hybrid/Single Occ. (2) | 127      | 4264                | 53       | 1521                |
| Violators              | 7        | _                   | 4        | _                   |
| TOTAL                  | 3631     | 4713                | 1516     | 1695                |

#### **RATES**

| HOV Lane occupancy rate                     | 2.1 persons/veh | 2.3 persons/veh |
|---|-----------------|-----------------|
| Mixed Flow occupancy rate                   | 1.1 persons/veh | 1.1 persons/veh |
| Overall occupancy (incl. buses)             | 1.4 persons/veh | 1.4 persons/veh |
| Violation rate <sup>(3)</sup><br>(HOV Lane) | 0.4 %           | 0.6 %           |

- (2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only
- (3) Violation rate = no. of violators in HOV lane x 100%Total no. of vehicles in HOV lane

- (4) HOV lane in operation from 5:00 to 9:00 A.M.
- (5) Observations conducted 04/14/10 at Taylor Avenue I/C

## **Violation History**

Rte 101 I/C to Route 280 I/C

#### Southbound

#### A.M. PEAK

| DATE      | PERIOD<br>MONITORED | TOTAL HOVL<br>VOLUME | VIOLATION<br>RATE |
|-----------|---------------------|----------------------|-------------------|
| Year 2010 | -                   | -                    | -                 |
| Year 2009 | -                   | -                    | -                 |
| Year 2008 | -                   | -                    |                   |
| Year 2007 | -                   | -                    | -                 |

#### P.M. PEAK

| Thu May 27, 2010 | 3:00-6:00 PM | 1438 | 3.9% |
|------------------|--------------|------|------|
| Thu Mar 19, 2009 | 3:00-6:00 PM | 1392 | 2.5% |
| Wed Apr 9, 2008  | 3:00-6:00 PM | 1496 | 2.9% |
| Wed Oct 3, 2007  | 3:00-6:00 PM | 1373 | 0.8% |

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.

- (b) Evening period of operation from 3:00 to 7:00 PM.
- (c) Data was not collected in 2010 for off-peak direction

### **Violation History**

Route 280 I/C to Route 101 I/C

#### **Northbound**

**VIOLATION** 

#### A.M. PEAK

| DATE             | MONITORED      | VOLUME | RATE |
|------------------|----------------|--------|------|
| Wed Apr 14, 2010 | 6:00 - 9:00 AM | 1701   | 0.4% |
| Thu Sep 24, 2009 | 6:00 - 9:00 AM | 1786   | 0.4% |
| Thu Nov 13, 2008 | 6:00 - 9:00 AM | 1256   | 6.4% |
| Tue Sep 25, 2007 | 6:00 - 9:00 AM | 1048   | 7.6% |
| Thu Sep 21, 2006 | 6:00 - 9:00 AM | 532    | 1.7% |
| Tue Nov 8, 2005  | 6:00 - 9:00 AM | 494    | 3.2% |

**TOTAL HOVL** 

**PERIOD** 

#### P.M. PEAK

| Year 2010 | - | - | - |
|-----------|---|---|---|
| Year 2009 | - | - | - |
| Year 2008 | - | - | - |
| Year 2007 | - | - | - |
| Year 2006 | - | - | - |
| Year 2005 | - | - | - |

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.

- (b) Evening period of operation from 3:00 to 7:00 PM.
- (c) Data was not collected in 2010 for off-peak direction

### Southbound - P.M.

Route 280 I/C to Route 85 I/C

Typical data for 2010 (5)

| <b>PEAK PE</b> | RIOD (4) |
|----------------|----------|
|----------------|----------|

#### **PEAK HOUR**

3:00 - 6:00 PM

5:00 - 6:00 PM

| VEHICLES               | HOV Lane | Mixed Flow<br>Lanes |   | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|---|----------|---------------------|
| Motorcycles            | 78       | 30                  |   | 38       | 13                  |
| Buses                  | 12       | 17                  |   | 1        | 1                   |
| Carpools (1)           | 1388     | 1229                | _ | 582      | 365                 |
| Vanpools               | 5        | 5                   | _ | 1        | 1                   |
| Hybrid/Single Occ. (2) | 73       | 8862                |   | 39       | 3042                |
| Violators              | 131      |                     |   | 53       |                     |
| TOTAL                  | 1687     | 10143               |   | 714      | 3422                |

| PERSONS                | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 78       | 30                  | 38       | 13                  |
| Buses                  | 420      | 595                 | 35       | 35                  |
| Carpools (1)           | 3175     | 2684                | 1307     | 793                 |
| Vanpools               | 50       | 50                  | 10       | 10                  |
| Hybrid/Single Occ. (2) | 73       | 8862                | 39       | 3042                |
| Violators              | 131      | _                   | 53       | _                   |
| TOTAL                  | 3927     | 12221               | 1482     | 3893                |

#### **RATES**

| HOV Lane occupancy rate          | 2.3 persons/veh | 2.1 persons/veh |
|----------------------------------|-----------------|-----------------|
| Mixed Flow occupancy rate        | 1.2 persons/veh | 1.1 persons/veh |
| Overall occupancy (incl. buses)  | 1.4 persons/veh | 1.3 persons/veh |
| Violation rate (3)<br>(HOV Lane) | 7.8 %           | 7.4 %           |

**NOTES:** (1) Two or more occupants per vehicle.

- (2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only
- (3) Violation rate = no. of violators in HOV lane x 100%Total no. of vehicles in HOV lane

Total no. of venicles in 110 v tand

- (4) HOV lane in operation from 3:00 to 7:00 P.M.
- (5) Observations conducted 06/03/10 at Capitol Avenue I/C

### Northbound - A.M.

Route 85 I/C to Route 280 I/C

Typical data for 2010 (5)

| <b>PEAK</b> | <b>PERIOD</b> | (4) |
|-------------|---------------|-----|
|-------------|---------------|-----|

#### **PEAK HOUR**

6:00 - 9:00 AM

7:00 - 8:00 AM

| VEHICLES               | HOV Lane | Mixed Flow<br>Lanes |   | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|---|----------|---------------------|
| Motorcycles            | 52       | 9                   |   | 14       | 1                   |
| Buses                  | 5        | 2                   | _ | 2        | 1                   |
| Carpools (1)           | 2095     | 275                 |   | 911      | 74                  |
| Vanpools               | 7        | 2                   | _ | 3        | 0                   |
| Hybrid/Single Occ. (2) | 129      | 10060               | _ | 48       | 3743                |
| Violators              | 44       | _                   |   | 8        |                     |
| TOTAL                  | 2332     | 10348               |   | 986      | 3819                |

| PERSONS                | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 52       | 9                   | 14       | 1                   |
| Buses                  | 175      | 70                  | 70       | 35                  |
| Carpools (1)           | 4287     | 565                 | 1870     | 150                 |
| Vanpools               | 70       | 20                  | 30       | 0                   |
| Hybrid/Single Occ. (2) | 129      | 10060               | 48       | 3743                |
| Violators              | 44       | _                   | 8        | _                   |
| TOTAL                  | 4757     | 10724               | 2040     | 3929                |

#### **RATES**

| HOV Lane occupancy rate                     | 2.0 persons/veh | 2.1 persons/veh |
|---|-----------------|-----------------|
| Mixed Flow occupancy rate                   | 1.0 persons/veh | 1.0 persons/veh |
| Overall occupancy (incl. buses)             | 1.2 persons/veh | 1.2 persons/veh |
| Violation rate <sup>(3)</sup><br>(HOV Lane) | 1.9 %           | 0.8 %           |

**NOTES:** (1) Two or more occupants per vehicle.

- (2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only
- (3) Violation rate = no. of violators in HOV lane x 100%Total no. of vehicles in HOV lane

Total no. of venicles in 110 v tar

- (4) HOV lane in operation from 5:00 to 9:00 A.M.
- (5) Observations conducted 05/25/10 at Curtner Avenue I/C

## **Violation History**

Route 280 I/C to Jct Rte 85 I/C

#### Southbound

|           | DATE      | PERIOD<br>MONITORED | TOTAL HOVL<br>VOLUME | VIOLATION<br>RATE |
|-----------|-----------|---------------------|----------------------|-------------------|
| A.M. PEAK | Year 2010 | -                   | -                    | -                 |
|           | Year 2009 | -                   | -                    |                   |
|           | Year 2008 | -                   | -                    | -                 |
|           | Year 2007 | -                   | -                    | -                 |

#### P.M. PEAK

| Thu Jun 3, 2010   | 3:00-6:00 PM | 1687 | 7.8% |
|-------------------|--------------|------|------|
| Wed May 13, 2009  | 3:00-6:00 PM | 1541 | 1.5% |
| Thu Oct 16, 2008  | 3:00-6:00 PM | 1433 | 3.8% |
| Wed June 13, 2007 | 3:00-6:00 PM | 1326 | 5.2% |

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.

- (b) Evening period of operation from 3:00 to 7:00 PM.
- (c) Data was not collected in 2010 for off-peak direction

## **Violation History**

Jct Rte 85 to Route 280 I/C

#### Northbound

|           | DATE             | PERIOD<br>MONITORED | TOTAL HOVL<br>VOLUME | VIOLATION<br>RATE |
|-----------|------------------|---------------------|----------------------|-------------------|
| A.M. PEAK | Tue May 25, 2010 | 6:00 - 9:00 AM      | 2332                 | 1.9%              |
|           | Wed Dec 2, 2009  | 6:00 - 9:00 AM      | 3474                 | 1.8%              |
|           | Wed Oct 29, 2008 | 6:00 - 9:00 AM      | 2838                 | 1.3%              |
|           | Thu Oct 11, 2007 | 6:00 - 9:00 AM      | 2021                 | 0.7%              |

#### P.M. PEAK

| Year 2010 | - | - | - |
|-----------|---|---|---|
| Year 2009 | - | - | - |
| Year 2008 | - | - | - |
| Year 2007 | - | - | _ |

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.

- $(b) \ \ Evening\ period\ of\ operation\ from\ 3:00\ to\ 7:00\ PM.$
- (c) Data was not collected in 2010 for off-peak direction

### Southbound - A.M.

SM/SCL County Line to Ellis Street

Typical data for 2010 (5)

| Р | FΔ | K | PF | RI | O                      | D | (4) |
|---|----|---|----|----|------------------------|---|-----|
|   | ᅳ  |   |    |    | $\mathbf{\mathcal{U}}$ | _ |     |

#### **PEAK HOUR**

6:00 - 9:00 AM

7:00 - 8:00 AM

| VEHICLES               | HOV Lane | Mixed Flow<br>Lanes |   | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|---|----------|---------------------|
| Motorcycles            | 65       | 24                  | _ | 26       | 5                   |
| Buses                  | 17       | 25                  | _ | 7        | 13                  |
| Carpools (1)           | 1539     | 415                 | _ | 580      | 135                 |
| Vanpools <sub>_</sub>  | 13       | 1                   | _ | 6        | 0                   |
| Hybrid/Single Occ. (2) | 241      | 14356               | _ | 65       | 5691                |
| Violators              | 29       |                     |   | 6        |                     |
| TOTAL                  | 1904     | 14821               |   | 690      | 5844                |

| PERSONS                | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 65       | 24                  | 26       | 5                   |
| Buses                  | 595      | 875                 | 245      | 455                 |
| Carpools (1)           | 3164     | 938                 | 1194     | 310                 |
| Vanpools               | 130      | 10                  | 60       | 0                   |
| Hybrid/Single Occ. (2) | 241      | 14356               | 65       | 5691                |
| Violators              | 29       | _                   | 6        | _                   |
| TOTAL                  | 4224     | 16203               | 1596     | 6461                |

#### **RATES**

| HOV Lane occupancy rate         | 2.2 persons/veh | 2.3 persons/veh |
|---------------------------------|-----------------|-----------------|
| Mixed Flow occupancy rate       | 1.1 persons/veh | 1.1 persons/veh |
| Overall occupancy (incl. buses) | 1.2 persons/veh | 1.2 persons/veh |
| Violation rate (HOV Lane)       | 1.5 %           | 0.9 %           |

- (2) Hybrid HOV lane only/Single Occupancy mixed flow lanes only
- (3) Violation rate = no. of violators in HOV lane x 100% Total no. of vehicles in HOV lane
- (4) HOV lane in operation from 5:00 to 9:00 A.M.
- (5) Observations conducted 06/02/10 at the San Antonio Road I/C

### Southbound - P.M.

SM/SCL County Line to Ellis Street

Typical data for 2010 (5)

| D | $\Box$ $\land$ | K | DE | DI | $\bigcirc$ | ח | (4) |
|---|----------------|---|----|----|------------|---|-----|
|   | CA             | N |    | RΙ | UI         | u |     |

#### **PEAK HOUR**

3:00 - 6:00 PM

5:00 - 6:00 PM

| VEHICLES               | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 80       | 31                  | 37       | 13                  |
| Buses                  | 16       | 12                  | 3        | 6                   |
| Carpools (1)           | 3730     | 624                 | 1345     | 146                 |
| Vanpools               | 21       | 2                   | 8        | 1                   |
| Hybrid/Single Occ. (2) | 254      | 13582               | 126      | 4578                |
| Violators              | 132      |                     | 22       |                     |
| TOTAL                  | 4233     | 14251               | 1541     | 4744                |

| PERSONS                 | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|-------------------------|----------|---------------------|----------|---------------------|
| Motorcycles             | 80       | 31                  | 37       | 13                  |
| Buses                   | 560      | 420                 | 105      | 210                 |
| Carpools <sup>(1)</sup> | 7970     | 1379                | 2848     | 336                 |
| Vanpools _              | 210      | 20                  | 80       | 10                  |
| Hybrid/Single Occ. (2)  | 254      | 13582               | 126      | 4578                |
| Violators               | 132      | _                   | 22       | _                   |
| TOTAL                   | 9206     | 15432               | 3218     | 5147                |

#### **RATES**

| HOV Lane occupancy rate         | 2.2 persons/veh | 2.1 persons/veh |
|---------------------------------|-----------------|-----------------|
| Mixed Flow occupancy rate       | 1.1 persons/veh | 1.1 persons/veh |
| Overall occupancy (incl. buses) | 1.3 persons/veh | 1.3 persons/veh |
| Violation rate (3) (HOV Lane)   | 3.1 %           | 1.4 %           |

- (2) Hybrid HOV lane only/Single Occupancy mixed flow lanes only
- (3) Violation rate = no. of violators in HOV lane x 100% Total no. of vehicles in HOV lane
- (4) HOV lane in operation from 3:00 to 7:00 P.M.
- (5) Observations conducted 04/14/10 at the San Antonio Road I/C

### Northbound - A.M.

Ellis Street to SCL/SM County Line

Typical data for 2010 (5)

### PEAK PERIOD (4)

#### **PEAK HOUR**

6:00 - 9:00 AM

7:00 - 8:00 AM

| VEHICLES               | HOV Lane | Mixed Flow<br>Lanes | HO\ | / Lane      | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|-----|-------------|---------------------|
| Motorcycles            | 39       | 63                  |     | 12          | 23                  |
| Buses                  | 0        | 23                  |     | 0           | 9                   |
| Carpools (1)           | 1846     | 459                 | 7   | <b>7</b> 48 | 173                 |
| Vanpools               | 7        | 14                  |     | 5           | 6                   |
| Hybrid/Single Occ. (2) | 84       | 14281               | ;   | 30          | 5084                |
| Violators              | 10       |                     |     | 4           |                     |
| TOTAL                  | 1986     | 14840               | 7   | <b>'</b> 99 | 5295                |

| PERSONS                | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 39       | 63                  | 12       | 23                  |
| Buses                  | 0        | 805                 | 0        | 315                 |
| Carpools (1)           | 3845     | 1030                | 1559     | 391                 |
| Vanpools               | 70       | 140                 | 50       | 60                  |
| Hybrid/Single Occ. (2) | 84       | 14281               | 30       | 5084                |
| Violators              | 10       | _                   | 4        | _                   |
| TOTAL                  | 4048     | 16319               | 1655     | 5873                |

#### **RATES**

| HOV Lane occupancy rate                     | 2.0 persons/veh | 2.1 persons/veh |
|---|-----------------|-----------------|
| Mixed Flow occupancy rate                   | 1.1 persons/veh | 1.1 persons/veh |
| Overall occupancy (incl. buses)             | 1.2 persons/veh | 1.2 persons/veh |
| Violation rate <sup>(3)</sup><br>(HOV Lane) | 0.5 %           | 0.5 %           |

- (2) Hybrid HOV lane only/Single Occupancy mixed flow lanes only
- (3) Violation rate = no. of violators in HOV lane x 100% Total no. of vehicles in HOV lane

- (4) HOV lane in operation from 5:00 to 9:00 A.M.
- (5) Observations conducted 05/05/10 at San Antonio Road I/C

### Northbound - P.M.

Ellis Street to SCL/SM County Line

Typical data for 2010 (5)

| PF | AK       | <b>PER</b> | IOD | (4) |
|----|----------|------------|-----|-----|
| ГЬ | $\Delta$ |            | IUU |     |

#### **PEAK HOUR**

3:00 - 6:00 PM

4:00 - 5:00 PM

| VEHICLES               | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 70       | 36                  | 18       | 6                   |
| Buses                  | 23       | 26                  | 7        | 2                   |
| Carpools (1)           | 1672     | 579                 | 561      | 217                 |
| Vanpools               | 2        | 1                   | 0        | 1                   |
| Hybrid/Single Occ. (2) | 124      | 16781               | 42       | 5914                |
| Violators              | 11       |                     | 2        |                     |
| TOTAL                  | 1902     | 17423               | 630      | 6140                |

| PERSONS                | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 70       | 36                  | 18       | 6                   |
| Buses                  | 805      | 910                 | 245      | 70                  |
| Carpools (1)           | 3423     | 1311                | 1150     | 496                 |
| Vanpools               | 20       | 10                  | 0        | 10                  |
| Hybrid/Single Occ. (2) | 11       | 16781               | 42       | 5914                |
| Violators              | 124      | _                   | 2        | _                   |
| TOTAL                  | 4453     | 19048               | 1457     | 6496                |

#### **RATES**

| HOV Lane occupancy rate                     | 2.3 persons/veh | 2.3 persons/veh |
|---|-----------------|-----------------|
| Mixed Flow occupancy rate                   | 1.1 persons/veh | 1.1 persons/veh |
| Overall occupancy (incl. buses)             | 1.2 persons/veh | 1.2 persons/veh |
| Violation rate <sup>(3)</sup><br>(HOV Lane) | 0.6 %           | 0.3 %           |

- (2) Hybrid HOV lane only/Single Occupancy mixed flow lanes only
- (3) Violation rate = no. of violators in HOV lane x 100% Total no. of vehicles in HOV lane
- (4) HOV lane in operation from 3:00 to 7:00 P.M.
- (5) Observations conducted 05/12/10 at the San Antonio Road I/C

## **Violation History**

SM/SCL County Line to Ellis Street

#### Southbound

|           | DATE             | PERIOD<br>MONITORED | VOLUME | VIOLATION<br>RATE |
|-----------|------------------|---------------------|--------|-------------------|
|           |                  |                     |        |                   |
| A.M. PEAK | Wed Jun 2, 2010  | 6:00 - 9:00 AM      | 1904   | 1.5%              |
|           | Tue Apr 21, 2009 | 6:00 - 9:00 AM      | 2073   | 4.0%              |
|           | Thu Jun 5, 2008  | 6:00 - 9:00 AM      | 1747   | 0.7%              |
|           | Wed Nov 14, 2007 | 6:00 - 9:00 AM      | 1702   | 1.9%              |
|           | Tue Dec 5, 2006  | 6:00 - 9:00 AM      | 1352   | 0.7%              |
|           | Thu Sep 15, 2005 | 6:00 - 9:00 AM      | 1654   | 0.5%              |
|           | Wed Nov 17, 2004 | 6:00 - 9:00 AM      | 1762   | 0.3%              |
|           | Thu Oct 30, 2003 | 6:00 - 9:00 AM      | 1970   | 6.6%              |
|           | Wed May 15, 2002 | 6:00 - 9:00 AM      | 1949   | 6.6%              |
|           | Wed Mar 21, 2001 | 6:00 - 9:00 AM      | 2710   | 0.8%              |
|           | Wed Sep 13, 2000 | 6:00 - 9:00 AM      | 2823   | 10.5%             |

#### P.M. PEAK

| Wed Apr 14, 2010 | 3:00 - 6:00 PM | 4233 | 3.1% |
|------------------|----------------|------|------|
| Wed Apr 22, 2009 | 3:00 - 6:00 PM | 2957 | 0.5% |
| Tue Nov 18, 2008 | 3:00 - 6:00 PM | 3698 | 3.1% |
| Wed Apr 4, 2007  | 3:00 - 6:00 PM | 2763 | 0.3% |
| Wed Apr 26, 2006 | 3:00 - 6:00 PM | 2509 | 3.1% |
| Wed Mar 30, 2005 | 3:00 - 6:00 PM | 3001 | 3.6% |
| Wed Oct 27, 2004 | 3:00 - 6:00 PM | 2420 | 0.3% |
| Tue Oct 28, 2003 | 3:00 - 5:45 PM | 2608 | 1.4% |
| Tue May 14, 2002 | 3:00 - 6:00 PM | 2119 | 0.7% |
| Wed Oct 24, 2001 | 3:00 - 6:00 PM | 2935 | 4.4% |
| Thu Mar 30, 2000 | 3:00 - 6:00 PM | 3199 | 3.4% |
|                  |                |      |      |

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.

(b) Evening period of operation from 3:00 to 7:00 PM.

## **Violation History**

Ellis Street to SM/SCL County Line

#### **Northbound**

|           | DATE              | PERIOD<br>MONITORED | TOTAL HOVL<br>VOLUME | VIOLATION<br>RATE |
|-----------|-------------------|---------------------|----------------------|-------------------|
| A.M. PEAK | Wed May 5, 2010   | 6:00 - 9:00 AM      | 1986                 | 0.5%              |
|           | Thu Dec 3, 2009   | 6:00 - 9:00 AM      | 2264                 | 0.3%              |
|           | Tue Sep 30, 2008  | 6:00 - 9:00 AM      | 2278                 | 0.2%              |
|           | Tue Nov 6, 2007   | 6:00 - 9:00 AM      | 2301                 | 0.0%              |
|           | Thu Jun 1, 2006   | 6:00 - 9:00 AM      | 2581                 | 12.1%             |
|           | Thu Sep 22, 2005  | 6:00 - 9:00 AM      | 2494                 | 4.5%              |
|           | Tue Nov 2, 2004   | 6:00 - 9:00 AM      | 1641                 | 0.3%              |
|           | Thu May 22, 2003  | 6:00 - 9:00 AM      | 2132                 | 5.8%              |
|           | Wed Sept 25, 2002 | 6:45 - 9:00 AM      | 1479                 | 2.4%              |
|           | Thu Oct 4, 2001   | 6:00 - 9:00 AM      | 1942                 | 6.0%              |
|           | Thu May 18, 2000  | 6:00 - 9:00 AM      | 2047                 | 5.1%              |
|           |                   |                     |                      |                   |
| P.M. PEAK | Wed May 12, 2010  | 3:00 - 6:00 PM      | 1902                 | 0.6%              |
|           | Thu Oct 8, 2009   | 3:00 - 6:00 PM      | 2373                 | 1.0%              |
|           | Wed Dec 17, 2008  | 3:00 - 6:00 PM      | 2915                 | 0.8%              |
|           | Tue Sep 11, 2007  | 3:00 - 6:00 PM      | 2700                 | 0.4%              |
|           | Tue Dec 5, 2006   | 3:00 - 6:00 PM      | 2090                 | 0.1%              |
|           | Wed Oct 5, 2005   | 3:00 - 6:00 PM      | 1656                 | 0.8%              |
|           | Thu Dec 2, 2004   | 3:00 - 5:00 PM      | 1369                 | 2.8%              |
|           | Tue Jun 3, 2003   | 3:00 - 6:00 PM      | 2635                 | 7.2%              |
|           | Thu Jun 6, 2002   | 3:00 - 6:00 PM      | 3064                 | 2.1%              |
|           | Wed Oct 17, 2001  | 3:00 - 6:00 PM      | 2523                 | 3.2%              |
|           | Tue Nov 7, 2000   | 3:00 - 6:00 PM      | 3032                 | 4.6%              |

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.

<sup>(</sup>b) Evening period of operation from 3:00 to 7:00 PM.

### Southbound - P.M.

Ellis Street to Guadalupe Parkway

Typical data for 2010 (5)

| PEAK PERIOD ( | 4) |
|---------------|----|
|---------------|----|

#### **PEAK HOUR**

3:00 - 6:00 PM

3:00 - 4:00 PM

| VEHICLES               | HOV Lane | Mixed Flow<br>Lanes | _ | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|---|----------|---------------------|
| Motorcycles            | 123      | 18                  | _ | 33       | 1                   |
| Buses                  | 15       | 8                   | _ | 3        | 2                   |
| Carpools (1)           | 3065     | 609                 | _ | 1065     | 195                 |
| Vanpools               | 49       | 6                   | _ | 16       | 2                   |
| Hybrid/Single Occ. (2) | 134      | 12146               | _ | 44       | 4267                |
| Violators              | 21       |                     | _ | 1        |                     |
| TOTAL                  | 3407     | 12787               |   | 1162     | 4467                |

| PERSONS                | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 123      | 18                  | 33       | 1                   |
| Buses                  | 525      | 280                 | 105      | 70                  |
| Carpools (1)           | 6342     | 1298                | 2202     | 415                 |
| Vanpools               | 490      | 60                  | 160      | 20                  |
| Hybrid/Single Occ. (2) | 134      | 12146               | 44       | 4267                |
| Violators              | 21       |                     | 1        |                     |
| TOTAL                  | 7635     | 13802               | 2545     | 4773                |

#### **RATES**

| HOV Lane occupancy rate                     | 2.2 persons/veh | 2.2 persons/veh |
|---|-----------------|-----------------|
| Mixed Flow occupancy rate                   | 1.1 persons/veh | 1.1 persons/veh |
| Overall occupancy (incl. buses)             | 1.3 persons/veh | 1.3 persons/veh |
| Violation rate <sup>(3)</sup><br>(HOV Lane) | 0.6 %           | 0.1 %           |

- (2) Hybrid HOV lane only/Single Occupancy mixed flow lanes only.
- (3) Violation rate = no. of violators in HOV lane x 100%

  Total no. of vehicles in HOV lane
- (4) HOV lane in operation from 3:00 to 7:00 P.M.
- (5) Observations conducted 05/13/10 at the San Tomas Expressway I/C

### Northbound - A.M.

Guadalupe Parkway to Ellis Street

Typical data for 2010 (5)

| PF | =Δ | K | ΡI | FR | 210 | חו | (4) |
|----|----|---|----|----|-----|----|-----|
|    |    |   |    |    |     |    |     |

#### **PEAK HOUR**

6:00 - 9:00 AM

7:00 - 8:00 AM

| VEHICLES               | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 33       | 46                  | 9        | 10                  |
| Buses                  | 5        | 3                   | 2        | 0                   |
| Carpools (1)           | 1468     | 637                 | 563      | 242                 |
| Vanpools               | 15       | 10                  | 10       | 5                   |
| Hybrid/Single Occ. (2) | 96       | 16401               | 27       | 6052                |
| Violators              | 15       |                     | 3        |                     |
| TOTAL                  | 1632     | 17097               | 614      | 6309                |

| PERSONS                | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 33       | 46                  | 9        | 10                  |
| Buses                  | 175      | 105                 | 70       | 0                   |
| Carpools (1)           | 2959     | 1472                | 1134     | 559                 |
| Vanpools               | 150      | 100                 | 100      | 50                  |
| Hybrid/Single Occ. (2) | 96       | 16401               | 27       | 6052                |
| Violators              | 15       |                     | 3        | _                   |
| TOTAL                  | 3428     | 18124               | 1343     | 6671                |

#### **RATES**

| HOV Lane occupancy rate                     | 2.1 persons/veh | 2.2 persons/veh |
|---|-----------------|-----------------|
| Mixed Flow occupancy rate                   | 1.1 persons/veh | 1.1 persons/veh |
| Overall occupancy (incl. buses)             | 1.2 persons/veh | 1.2 persons/veh |
| Violation rate <sup>(3)</sup><br>(HOV Lane) | 0.9 %           | 0.5 %           |

- (2) Hybrid HOV lane only/Single Occupancy mixed flow lanes only
- (3) Violation rate = no. of violators in HOV lane x 100% Total no. of vehicles in HOV lane
- (4) HOV lane in operation from 5:00 to 9:00 A.M.
- (5) Observations conducted 05/26/10 at the Fair Oaks Avenue I/C

### **Violation History**

Ellis Street to Guadalupe Parkway

A.M.

P.M.

#### **Southbound**

**VIOLATION** 

| DATE             | MONITORED   | VOLUME  | RATE      |
|------------------|---|---|-----------|
| Year 2010        | -   | -   | -         |
| Year 2009        | -   | -   | -         |
| Year 2008        | -   | -   | -         |
| Year 2007        | -   | -   | -         |
| Year 2006        | -   | -   | -         |
| Year 2005        | -   | -   | -         |
| Year 2004        | -   | -   | -         |
| Year 2003        | -   | -   | -         |
| Tue Dec 3, 2002  | 6:00 - 9:00 AM  | 668   | 2.2%      |
| Tue Jun 5, 2001  | 6:00 - 9:00 AM  | 765   | 2.1%      |
| Thu Apr 20, 2000 | 6:00 - 9:00 AM  | 916   | 3.8%      |
|                  |   |   |           |
| Thu May 13, 2010 | 3:00 - 6:00 PM  | 3407  | 0.6%      |
| Wed Mar 11, 2009 | 4:00 - 6:00 PM  | 2117  | 0.2%      |
| Thu Oct 9, 2008  | 3:00 - 6:00 PM  | 2779  | 0.2%      |
| Thu Nov 15, 2007 | 3:00 - 6:00 PM  | 3266  | 0.2%      |
| Tue Apr 18, 2006 | 3:00 - 6:00 PM  | 2779  | 0.3%      |
| Wed Apr 27, 2005 | 3:00 - 6:00 PM  | 2964  | 0.3%      |
| Tue Nov 16, 2004 | 3:00 - 5:30 PM  | 2190  | 0.4%      |
| Thu May 29, 2003 | 3:00 - 6:00 PM  | 3454  | 3.6%      |
| Thu Apr 11, 2002 | 3:00 - 6:00 PM  | 2912  | 1.2%      |
| Thu Mar 29, 2001 | 3:00 - 6:00 PM  | 3903  | 3.1%      |
| Wed Nov 15, 2000 | 3:00 - 5:30 PM  | 3077  | 2.7%      |
|                  | Year 2010 Year 2009 Year 2008 Year 2007 Year 2006 Year 2005 Year 2004 Year 2003 Tue Dec 3, 2002 Tue Jun 5, 2001 Thu Apr 20, 2000  Thu Apr 20, 2000  Thu Oct 9, 2008 Thu Nov 15, 2007 Tue Apr 18, 2006 Wed Apr 27, 2005 Tue Nov 16, 2004 Thu May 29, 2003 Thu Apr 11, 2002 Thu Apr 11, 2002 Thu Mar 29, 2001 | Year 2010 Year 2009 Year 2008 Year 2007 Year 2006 Year 2005 Year 2004 Year 2003 Tue Dec 3, 2002 Tue Jun 5, 2001 Thu Apr 20, 2000 Thu Oct 9, 2008 Thu Nov 15, 2007 Tue Apr 18, 2006 Tue Nov 16, 2004 Thu May 29, 2003 Thu May 29, 2001 Thu Mar 29, 2001 Thu Mar 29, 2001 Thu Mar 20, 2002 Thu May 29, 2003 Thu Apr 11, 2002 Thu Mar 29, 2001 | Year 2010 |

PERIOD

**TOTAL HOVL** 

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.

- (b) Evening period of operation from 3:00 to 7:00 PM.
- (c) Data was not collected in 2010 for off-peak direction

### **Violation History**

Guadalupe Parkway to Ellis Street

#### **Northbound**

**VIOLATION** 

#### A.M. PEAK

| DATE             | MONITORED      | VOLUME | RATE |
|------------------|----------------|--------|------|
| Wed May 26, 2010 | 6:00 - 9:00 AM | 1632   | 0.9% |
| Thu Apr 2, 2009  | 6:00 - 9:00 AM | 2218   | 2.8% |
| Thu Dec 11, 2008 | 6:00 - 9:00 AM | 1695   | 3.8% |
| Thu Nov 15, 2007 | 6:00 - 9:00 AM | 2371   | 0.9% |
| Tue Nov 14, 2006 | 6:00 - 9:00 AM | 1811   | 0.7% |
| Wed Oct 26, 2005 | 7:00 - 9:00 AM | 1221   | 0.4% |
| Tue Nov 16, 2004 | 6:00 - 9:00 AM | 1799   | 0.7% |
| Wed May 7, 2003  | 6:00 - 9:00 AM | 2142   | 0.6% |
| Thu Apr 4, 2002  | 6:00 - 9:00 AM | 1646   | 7.5% |
| Wed Sep 26, 2001 | 6:00 - 9:00 AM | 1607   | 0.8% |
| Tue Apr 4, 2000  | 6:00 - 9:00 AM | 1527   | 2.8% |

**PERIOD** 

**TOTAL HOVL** 

#### P.M. PEAK

| Year 2010        | -              | -    | -    |
|------------------|----------------|------|------|
| Year 2009        | -              | -    | -    |
| Year 2008        | -              | -    | -    |
| Year 2007        | -              | -    | -    |
| Year 2006        | -              | -    | -    |
| Year 2005        | -              | -    | -    |
| Year 2004        | -              | -    | -    |
| Year 2003        | -              | -    | -    |
| Wed May 22, 2002 | 3:00 - 6:00 PM | 1487 | 3.8% |
| Wed May 10, 2000 | 3:00 - 6:00 PM | 1684 | 0.3% |
|                  |                |      |      |

- **NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.
  - (b) Evening period of operation from 3:00 to 7:00 PM.
  - (c) Data was not collected in 2010 for off-peak direction

## Southbound - P.M.

Guadalupe Parkway to Route 280/680

Typical data for 2010 (5)

| P | FΔ | K   | PF | ER. | IO | D | (4) |
|---|----|-----|----|-----|----|---|-----|
|   |    | 111 | Г  | _17 | w  | u |     |

### **PEAK HOUR**

3:00 - 6:00 PM

5:00 - 6:00 PM

| VEHICLES                | HOV Lane | Mixed Flow<br>Lanes |   | HOV Lane | Mixed Flow<br>Lanes |
|-------------------------|----------|---------------------|---|----------|---------------------|
| Motorcycles             | 88       | 25                  | _ | 39       | 11                  |
| Buses                   | 13       | 131                 | _ | 4        | 33                  |
| Carpools <sup>(1)</sup> | 2186     | 1185                | _ | 719      | 325                 |
| Vanpools                | 6        | 15                  | _ | 2        | 0                   |
| Hybrid/Single Occ. (2)  | 80       | 14916               | _ | 37       | 5122                |
| Violators               | 14       |                     | _ | 2        |                     |
| TOTAL                   | 2387     | 16272               |   | 803      | 5491                |

| PERSONS                | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 88       | 25                  | 39       | 11                  |
| Buses                  | 455      | 4585                | 140      | 1155                |
| Carpools (1)           | 4511     | 2586                | 1475     | 720                 |
| Vanpools               | 60       | 150                 | 20       | 0                   |
| Hybrid/Single Occ. (2) | 80       | 14916               | 37       | 5122                |
| Violators              | 14       | _                   | 2        | _                   |
| TOTAL                  | 5208     | 22262               | 1713     | 7008                |

### **RATES**

| HOV Lane occupancy rate                     | 2.2 persons/veh | 2.1 persons/veh |
|---|-----------------|-----------------|
| Mixed Flow occupancy rate                   | 1.4 persons/veh | 1.3 persons/veh |
| Overall occupancy (incl. buses)             | 1.5 persons/veh | 1.4 persons/veh |
| Violation rate <sup>(3)</sup><br>(HOV Lane) | 0.6 %           | 0.2 %           |

- (2) Hybrid HOV lane only/Single Occupancy mixed flow lanes only
- (3) Violation rate = no. of violators in HOV lane x 100% Total no. of vehicles in HOV lane

- (4) HOV lane in operation from 3:00 to 7:00 P.M.
- (5) Observations conducted 03/18/10 at the McKee Road I/C

### Northbound - A.M.

Route 280/680 to Guadalupe Parkway

Typical data for 2010 (5)

| P | F | K   | PF | RI | 0 | n | (4) |
|---|---|-----|----|----|---|---|-----|
|   |   | ••• |    |    | • | _ |     |

### **PEAK HOUR**

6:00 - 9:00 AM

7:00 - 8:00 AM

| VEHICLES                | HOV Lane | Mixed Flow<br>Lanes | Н0 | OV Lane | Mixed Flow<br>Lanes |
|-------------------------|----------|---------------------|----|---------|---------------------|
| Motorcycles             | 125      | 20                  |    | 49      | 6                   |
| Buses                   | 6        | 20                  |    | 3       | 13                  |
| Carpools <sup>(1)</sup> | 3146     | 461                 |    | 1347    | 157                 |
| Vanpools <sub>_</sub>   | 9        | 4                   |    | 4       | 0                   |
| Hybrid/Single Occ. (2)  | 118      | 15025               |    | 46      | 5224                |
| Violators               | 69       |                     |    | 27      |                     |
| TOTAL                   | 3473     | 15530               |    | 1476    | 5400                |

| PERSONS                | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 125      | 20                  | 49       | 6                   |
| Buses                  | 210      | 700                 | 105      | 455                 |
| Carpools (1)           | 6377     | 955                 | 2731     | 328                 |
| Vanpools               | 90       | 40                  | 40       | 0                   |
| Hybrid/Single Occ. (2) | 118      | 15025               | 46       | 5224                |
| Violators              | 69       |                     | 27       |                     |
| TOTAL                  | 6989     | 16740               | 2998     | 6013                |

#### **RATES**

| HOV Lane occupancy rate                     | 2.0 persons/veh | 2.0 persons/veh |
|---|-----------------|-----------------|
| Mixed Flow occupancy rate                   | 1.1 persons/veh | 1.1 persons/veh |
| Overall occupancy (incl. buses)             | 1.2 persons/veh | 1.3 persons/veh |
| Violation rate <sup>(3)</sup><br>(HOV Lane) | 2.0 %           | 1.8 %           |

**NOTES:** (1) Two or more occupants per vehicle.

- (2) Hybrid HOV lane only/Single Occupancy mixed flow lanes only
- (3) Violation rate = no. of violators in HOV lane x 100% Total no. of vehicles in HOV lane

Total no. of venicles in 110 v ta

- (4) HOV lane in operation from 5:00 to 9:00 A.M.
- (5) Observations conducted 05/13/10 at the McKee Road I/C

# **Violation History**

Guadalupe Parkway to Route 280/680 I/C

### **Southbound**

|           | DATE             | PERIOD<br>MONITORED | TOTAL HOVL<br>VOLUME | VIOLATION<br>RATE |
|-----------|------------------|---------------------|----------------------|-------------------|
| A.M. PEAK | Year 2010        | -                   | -                    | -                 |
|           | Year 2009        | -                   | -                    | -                 |
|           | Year 2008        | -                   | -                    | -                 |
|           | Year 2007        | -                   | -                    | -                 |
|           | Year 2006        | -                   | -                    | -                 |
|           | Year 2005        | -                   | -                    | -                 |
|           | Year 2004        | -                   | -                    | -                 |
|           | Year 2003        | -                   | -                    | -                 |
|           | Thu May 30, 2002 | 6:00 - 9:00 AM      | 339                  | 3.5%              |
|           | Thu Oct 18, 2001 | 6:00 - 9:00 AM      | 495                  | 3.0%              |
|           | Thu Jun 8, 2000  | 6:00 - 9:00 AM      | 485                  | 11.8%             |
|           |                  |                     |                      |                   |
| P.M. PEAK | Thu Mar 18, 2010 | 3:00 - 6:00 PM      | 2387                 | 0.6%              |
|           | Wed Mar 18, 2009 | 3:00 - 6:00 PM      | 2659                 | 1.1%              |
|           | Thu Nov 6, 2008  | 3:00 - 6:00 PM      | 3464                 | 1.7%              |
|           | Thu Dec 13, 2007 | 3:00 - 6:00 PM      | 3098                 | 0.4%              |
|           | Tue May 9, 2006  | 3:00 - 6:00 PM      | 2216                 | 0.1%              |
|           | Wed Sep 21, 2005 | 3:00 - 6:00 PM      | 2452                 | 0.2%              |
|           | Tue Nov 9, 2004  | 3:00 - 5:30 PM      | 1947                 | 0.7%              |
|           | Thu Apr 3, 2003  | 3:00 - 6:00 PM      | 1860                 | 0.5%              |
|           | Thu Jun 13, 2002 | 3:00 - 6:00 PM      | 2342                 | 1.3%              |
|           | Tue Mar 27, 2001 | 3:00 - 6:00 PM      | 2840                 | 2.6%              |
|           | Thu May 11, 2000 | 3:00 - 6:00 PM      | 3049                 | 1.7%              |

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.

<sup>(</sup>b) Evening period of operation from 3:00 to 7:00 PM.

<sup>(</sup>c) Data was not collected in 2010 for off-peak direction

# **Violation History**

Route 280/680 I/C to Guadalupe Parkway

### **Northbound**

|           | DATE             | PERIOD<br>MONITORED | TOTAL HOVL<br>VOLUME | VIOLATION<br>RATE |
|-----------|------------------|---------------------|----------------------|-------------------|
| A.M. PEAK | Thu May 13, 2010 | 6:00 - 9:00 AM      | 3473                 | 2.0%              |
|           | Thu Oct 22, 2009 | 6:00 - 9:00 AM      | 2947                 | 0.3%              |
|           | Tue Oct 7, 2008  | 6:00 - 9:00 AM      | 3651                 | 0.4%              |
|           | Tue Dec 11, 2007 | 6:00 - 9:00 AM      | 3914                 | 0.1%              |
|           | Tue May 16, 2006 | 6:00 - 9:00 AM      | 3374                 | 3.8%              |
|           | Wed Mar 30, 2005 | 6:00 - 9:00 AM      | 4026                 | 6.8%              |
|           | Thu Dec 2, 2004  | 6:00 - 9:00 AM      | 3561                 | 0.2%              |
|           | Thu Jun 12, 2003 | 6:00 - 9:00 AM      | 3794                 | 2.6%              |
|           | Thu Apr 11, 2002 | 6:30 - 9:00 AM      | 3438                 | 2.7%              |
|           | Thu May 11, 2000 | 6:00 - 9:00 AM      | 4839                 | 2.4%              |
|           |                  |                     |                      |                   |
| P.M. PEAK | Year 2010        | -                   | -                    | -                 |
|           | Year 2009        | -                   | -                    | -                 |
|           | Year 2008        | -                   | -                    | -                 |
|           | Year 2007        | -                   | -                    | -                 |
|           | Year 2006        | -                   | -                    | -                 |
|           | Year 2005        | -                   | -                    | -                 |
|           | Year 2004        | -                   | -                    | -                 |
|           | Year 2003        | -                   | -                    | -                 |
|           | Thu May 23, 2002 | 3:00 - 6:00 PM      | 1264                 | 1.6%              |
|           | Thu Apr 27, 2000 | 3:00 - 6:00 PM      | 1318                 | 3.7%              |

- **NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.
  - (b) Evening period of operation from 3:00 to 7:00 PM.
  - (c) Data was not collected in 2010 for off-peak direction

## Southbound - P.M.

Route 280/680 to Bernal Road

Typical data for 2010 (5)

| PEAK | ( PE | RIO | <b>)</b> (4) |
|------|------|-----|--------------|
|------|------|-----|--------------|

### **PEAK HOUR**

3:00 - 6:00 PM

5:00 - 6:00 PM

| VEHICLES               | HOV Lane | Mixed Flow<br>Lanes |   | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|---|----------|---------------------|
| Motorcycles            | 26       | 12                  | _ | 12       | 3                   |
| Buses                  | 6        | 4                   | _ | 2        | 0                   |
| Carpools (1)           | 1617     | 1384                | _ | 511      | 458                 |
| Vanpools               | 4        | 3                   | _ | 0        | 0                   |
| Hybrid/Single Occ. (2) | 62       | 11524               | _ | 33       | 4159                |
| Violators              | 84       |                     | _ | 15       |                     |
| TOTAL                  | 1799     | 12927               | _ | 573      | 4620                |

| PERSONS                | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 26       | 12                  | 12       | 3                   |
| Buses                  | 210      | 140                 | 70       | 0                   |
| Carpools (1)           | 3352     | 2901                | 1057     | 952                 |
| Vanpools               | 40       | 30                  | 0        | 0                   |
| Hybrid/Single Occ. (2) | 62       | 11524               | 33       | 4159                |
| Violators              | 84       | _                   | 15       |                     |
| TOTAL                  | 3774     | 14607               | 1187     | 5114                |

### **RATES**

| HOV Lane occupancy rate                     | 2.1 persons/veh | 2.1 persons/veh |
|---|-----------------|-----------------|
| Mixed Flow occupancy rate                   | 1.1 persons/veh | 1.1 persons/veh |
| Overall occupancy (incl. buses)             | 1.2 persons/veh | 1.2 persons/veh |
| Violation rate <sup>(3)</sup><br>(HOV Lane) | 4.7 %           | 2.6 %           |

- (2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only
- (3) Violation rate = no. of violators in HOV lane x 100% Total no. of vehicles in HOV lane

- (4) HOV lane in operation from 3:00 to 7:00 P.M.
- (5) Observations conducted 04/29/10 at the Hellyer Avenue I/C

### Northbound - A.M.

Bernal Road to Route 280/680

Typical data for 2010 (5)

### PEAK PERIOD (4)

### **PEAK HOUR**

6:00 - 9:00 AM

7:00 - 8:00 AM

| VEHICLES               | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 55       | 30                  | 22       | 10                  |
| Buses                  | 10       | 6                   | 2        | 0                   |
| Carpools (1)           | 1680     | 423                 | 691      | 131                 |
| Vanpools               | 1        | 1                   | 0        | 1                   |
| Hybrid/Single Occ. (2) | 139      | 13294               | 55       | 4563                |
| Violators              | 14       |                     | 1        |                     |
| TOTAL                  | 1899     | 13754               | 771      | 4705                |

| PERSONS                | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 55       | 30                  | 22       | 10                  |
| Buses                  | 350      | 210                 | 70       | 0                   |
| Carpools (1)           | 3477     | 954                 | 1444     | 303                 |
| Vanpools               | 10       | 10                  | 0        | 10                  |
| Hybrid/Single Occ. (2) | 139      | 13294               | 55       | 4563                |
| Violators              | 14       | _                   | 1        |                     |
| TOTAL                  | 4045     | 14498               | 1592     | 4886                |

### **RATES**

| HOV Lane occupancy rate                     | 2.1 persons/veh | 2.1 persons/veh |
|---|-----------------|-----------------|
| Mixed Flow occupancy rate                   | 1.1 persons/veh | 1.0 persons/veh |
| Overall occupancy (incl. buses)             | 1.2 persons/veh | 1.2 persons/veh |
| Violation rate <sup>(3)</sup><br>(HOV Lane) | 0.7 %           | 0.1 %           |

- (2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only
- (3) Violation rate = no. of violators in HOV lane x 100% Total no. of vehicles in HOV lane
- (4) HOV lane in operation from 5:00 to 9:00 A.M.
- (5) Observations conducted 05/11/10 at the Hellyer Avenue I/C

# **Violation History**

Route 280/680 I/C to Bernal Road

### **Southbound**

**VIOLATION** 

**TOTAL HOVL** 

| Α. | M. | PE | AK |
|----|----|----|----|

| DATE             | MONITORED      | VOLUME | RATE |
|------------------|----------------|--------|------|
| Year 2010        | -              | -      | -    |
| Year 2009        | -              | -      | -    |
| Year 2008        | -              | -      | -    |
| Year 2007        | -              | -      | -    |
| Year 2006        | -              | -      | -    |
| Year 2005        | -              | -      | -    |
| Year 2004        | -              | -      | -    |
| Year 2003        | -              | -      | -    |
| Thu Jun 6, 2002  | 6:00 - 9:00 AM | 730    | 5.6% |
| Thu Apr 19, 2001 | 6:00 - 9:00 AM | 746    | 5.4% |
| Wed Oct 4, 2000  | 7:00 - 9:00 AM | 413    | 5.6% |
|                  |                |        |      |

PERIOD

### P.M. PEAK

| Thu Apr 29, 2010 | 3:00 - 6:00 PM | 1799 | 4.7% |
|------------------|----------------|------|------|
| Tue May 26, 2009 | 3:00 - 6:00 PM | 1953 | 1.1% |
| Thu May 29, 2008 | 3:00 - 6:00 PM | 2088 | 0.6% |
| Tue May 8, 2007  | 3:00 - 6:00 PM | 1881 | 1.2% |
| Wed May 3, 2006  | 3:00 - 6:00 PM | 2127 | 3.3% |
| Thu Mar 10, 2005 | 3:00 - 6:00 PM | 2225 | 0.6% |
| Tue Nov 23, 2004 | 3:00 - 5:30 PM | 1747 | 0.3% |
| Thu May 1, 2003  | 3:00 - 6:00 PM | 2204 | 1.6% |
| Tue Mar 19, 2002 | 3:00 - 6:00 PM | 1496 | 2.0% |
| Wed May 16, 2001 | 3:00 - 6:00 PM | 1732 | 0.8% |
| Tue Sep 19, 2000 | 3:00 - 6:00 PM | 1898 | 0.7% |
|                  |                |      |      |

- **NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.
  - (b) Evening period of operation from 3:00 to 7:00 PM.
  - (c) Data was not collected in 2010 for off-peak direction

# **Violation History**

Bernal Road to Route 280/680 I/C

### **Northbound**

|           | DATE             | PERIOD<br>MONITORED | TOTAL HOVL<br>VOLUME | VIOLATION<br>RATE |
|-----------|------------------|---------------------|----------------------|-------------------|
| A.M. PEAK | Tue May 11, 2010 | 6:00 - 9:00 AM      | 1899                 | 0.7%              |
|           | Wed Apr 29, 2009 | 6:00 - 9:00 AM      | 1610                 | 0.5%              |
|           | Wed Oct 15, 2008 | 6:00 - 9:00 AM      | 1658                 | 0.4%              |
|           | Tue Apr 10, 2007 | 6:00 - 9:00 AM      | 1575                 | 0.6%              |
|           | Tue Apr 18, 2006 | 6:00 - 9:00 AM      | 2019                 | 2.2%              |
|           | Tue Apr 19, 2005 | 6:00 - 9:00 AM      | 2366                 | 0.8%              |
|           | Tue Dec 14, 2004 | 6:00 - 9:00 AM      | 1668                 | 1.3%              |
|           | Tue Jun 3, 2003  | 6:00 - 9:00 AM      | 2620                 | 1.0%              |
|           | Thu May 16, 2002 | 6:00 - 9:00 AM      | 1859                 | 2.7%              |
|           | Tue Apr 3, 2001  | 6:00 - 9:00 AM      | 2258                 | 3.5%              |
|           | Thu Nov 30, 2000 | 7:00 - 9:00 AM      | 1503                 | 2.3%              |
|           |                  |                     |                      |                   |
| P.M. PEAK | Year 2010        | -                   | -                    | -                 |
|           | Year 2009        | -                   | -                    | -                 |
|           | Year 2008        | -                   | -                    | -                 |
|           | Year 2007        | -                   | -                    | -                 |
|           | Year 2006        | -                   | -                    | -                 |
|           | Year 2005        | -                   | -                    | -                 |
|           | Year 2004        | -                   | -                    | -                 |
|           | Year 2003        | -                   | -                    | -                 |
|           | Wed Mar 27, 2002 | 3:00 - 6:00 PM      | 1156                 | 3.1%              |
|           | Tue May 15, 2001 | 3:00 - 6:00 PM      | 1155                 | 5.4%              |
|           | Wed Apr 5, 2000  | 3:00 - 6:00 PM      | 1169                 | 5.9%              |

- **NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.
  - (b) Evening period of operation from 3:00 to 7:00 PM.
  - (c) Data was not collected in 2010 for off-peak direction

## Southbound - P.M.

Bernal Road to Cochrane Road

Typical data for 2010 (5)

| <b>PEAK</b> | <b>PERIOD</b> | (4) |
|-------------|---------------|-----|
|-------------|---------------|-----|

### **PEAK HOUR**

3:00 - 6:00 PM

4:00 - 5:00 PM

| VEHICLES               | HOV Lane | Mixed Flow<br>Lanes | НО | V Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----|--------|---------------------|
| Motorcycles            | 35       | 26                  |    | 9      | 1                   |
| Buses                  | 1        | 8                   |    | 0      | 0                   |
| Carpools (1)           | 2275     | 465                 |    | 770    | 211                 |
| Vanpools <sub>_</sub>  | 5        | 1                   |    | 2      | 0                   |
| Hybrid/Single Occ. (2) | 240      | 10042               |    | 84     | 3661                |
| Violators              | 4        |                     |    | 1      |                     |
| TOTAL                  | 2560     | 10542               |    | 866    | 3873                |

| PERSONS                | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 35       | 26                  | 9        | 1                   |
| Buses                  | 35       | 280                 | 0        | 0                   |
| Carpools (1)           | 4619     | 987                 | 1563     | 444                 |
| Vanpools               | 50       | 10                  | 20       | 0                   |
| Hybrid/Single Occ. (2) | 240      | 10042               | 84       | 3661                |
| Violators              | 4        |                     | 1        |                     |
| TOTAL                  | 4983     | 11345               | 1677     | 4106                |

### **RATES**

| HOV Lane occupancy rate                     | 1.9 persons/veh | 1.9 persons/veh |
|---|-----------------|-----------------|
| Mixed Flow occupancy rate                   | 1.1 persons/veh | 1.1 persons/veh |
| Overall occupancy (incl. buses)             | 1.2 persons/veh | 1.2 persons/veh |
| Violation rate <sup>(3)</sup><br>(HOV Lane) | 0.2 %           | 0.1 %           |

- (2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only
- (3) Violation rate = no. of violators in HOV lane x 100%

  Total no. of vehicles in HOV lane
- (4) HOV lane in operation from 3:00 to 7:00 P.M.
- (5) Observations conducted 05/05/10 at Coyote Creek Golf Drive I/C

### Northbound - A.M.

Cochrane Road to Bernal Road

Typical data for 2010 (5)

| PF | ΔΚ     | <b>PFR</b> |   | (4) |
|----|--------|------------|---|-----|
|    | $\neg$ | 1 – 11     | w |     |

### **PEAK HOUR**

6:00 - 9:00 AM

7:00 - 8:00 AM

| VEHICLES               | HOV Lane | Mixed Flow<br>Lanes | _ | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|---|----------|---------------------|
| Motorcycles            | 80       | 42                  | _ | 35       | 9                   |
| Buses                  | 9        | 8                   | _ | 3        | 6                   |
| Carpools (1)           | 1875     | 496                 |   | 756      | 163                 |
| Vanpools               | 2        | 28                  |   | 1        | 8                   |
| Hybrid/Single Occ. (2) | 115      | 14336               | _ | 35       | 5312                |
| Violators              | 29       | _                   |   | 4        | _                   |
| TOTAL                  | 2110     | 14910               | - | 834      | 5498                |

| PERSONS                | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 80       | 42                  | 35       | 9                   |
| Buses                  | 315      | 280                 | 105      | 210                 |
| Carpools (1)           | 3855     | 1087                | 1545     | 369                 |
| Vanpools               | 20       | 280                 | 10       | 80                  |
| Hybrid/Single Occ. (2) | 115      | 14336               | 35       | 5312                |
| Violators              | 29       | _                   | 4        | _                   |
| TOTAL                  | 4414     | 16025               | 1734     | 5980                |

### **RATES**

| HOV Lane occupancy rate         | 2.1 persons/veh | 2.1 persons/veh |
|---------------------------------|-----------------|-----------------|
| Mixed Flow occupancy rate       | 1.1 persons/veh | 1.1 persons/veh |
| Overall occupancy (incl. buses) | 1.2 persons/veh | 1.2 persons/veh |
| Violation rate (3) (HOV Lane)   | 1.4 %           | 0.5 %           |

- (2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only
- (3) Violation rate = no. of violators in HOV lane x 100%Total no. of vehicles in HOV lane
- (4) HOV lane in operation from 5:00 to 9:00 A.M.
- (5) Observations conducted 06/09/10 at Coyote Creek Golf Drive I/C

# **Violation History**

Bernal Road to Cochrane Road

### **Southbound**

**VIOLATION** 

### A.M. PEAK

| DATE      | MONITORED | VOLUME | RATE |
|-----------|-----------|--------|------|
| Year 2010 | -         | -      | -    |
| Year 2009 | -         | -      | -    |
| Year 2008 | -         | -      | -    |
| Year 2007 | -         | -      | -    |
| Year 2006 | -         | -      | -    |
| Year 2005 | -         | -      | -    |
| Year 2004 | -         | -      | -    |
| Year 2003 | -         | -      | -    |

**TOTAL HOVL** 

**PERIOD** 

### P.M. PEAK

| Sat May 15, 2010 | 3:00 - 6:00 PM | 2560 | 0.2% |
|------------------|----------------|------|------|
| Thu Jun 11, 2009 | 3:00 - 6:00 PM | 2388 | 1.3% |
| Wed Oct 29, 2008 | 3:00 - 6:00 PM | 2357 | 0.4% |
| Tue May 15, 2007 | 3:00 - 6:00 PM | 2177 | 0.4% |
| Wed Apr 19, 2006 | 3:00 - 6:00 PM | 1652 | 1.2% |
| Tue Sep 13, 2005 | 3:00 - 6:00 PM | 2102 | 0.1% |
| Wed Nov 3, 2004  | 3:00 - 5:30 PM | 1493 | 1.5% |
| Wed May 21, 2003 | 3:00 - 6:00 PM | 1775 | 1.1% |

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.

<sup>(</sup>b) Evening period of operation from 3:00 to 7:00 PM.

<sup>(</sup>c) Data was not collected in 2010 for off-peak period

# **Violation History**

Cochrane Road to Bernal Road

### **Northbound**

|           | DATE             | PERIOD<br>MONITORED | TOTAL HOVL<br>VOLUME | VIOLATION<br>RATE |
|-----------|------------------|---------------------|----------------------|-------------------|
| A.M. PEAK | Wed Jun 9, 2010  | 6:00 - 9:00 AM      | 2110                 | 1.4%              |
|           | Thu Dec 10, 2009 | 6:00 - 9:00 AM      | 2058                 | 0.7%              |
|           | Wed Jun 4, 2008  | 6:00 - 9:00 AM      | 2394                 | 1.0%              |
|           | Thu Dec 6, 2007  | 6:00 - 9:00 AM      | 2099                 | 0.3%              |
|           | Tue Dec 19, 2006 | 6:00 - 9:00 AM      | 2799                 | 1.0%              |
|           | Wed Dec 14, 2005 | 6:00 - 9:00 AM      | 1827                 | 1.4%              |
|           | Tue Nov 9, 2004  | 6:00 - 9:00 AM      | 2120                 | 0.2%              |
|           | Tue Oct 28, 2003 | 6:00 - 9:00 AM      | 1720                 | 0.0%              |
|           |                  |                     |                      |                   |
| P.M. PEAK | Year 2010        | -                   | -                    | -                 |
|           | Year 2009        | -                   | -                    | -                 |
|           | Year 2008        | -                   | -                    | -                 |
|           | Year 2007        | -                   | -                    | -                 |
|           | Year 2006        | -                   | -                    | -                 |
|           | Year 2005        | -                   | -                    | -                 |
|           | Year 2004        | -                   | -                    | -                 |
|           | Year 2003        | -                   | -                    | -                 |

- **NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.
  - (b) Evening period of operation from 3:00 to 7:00 PM.
  - (c) Data was not collected in 2010 for off-peak direction

### Westbound - A.M.

Route 880/237 I/C to Mathilda Avenue

Typical data for 2010 (5)

| <b>PEAK</b> | <b>PERIOD</b> | (4) |
|-------------|---------------|-----|
|-------------|---------------|-----|

### **PEAK HOUR**

6:00 - 9:00 AM

8:00 - 9:00 AM

| VEHICLES               | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 79       | 14                  | 27       | 4                   |
| Buses                  | 11       | 21                  | 5        | 1                   |
| Carpools (1)           | 1777     | 65                  | 752      | 21                  |
| Vanpools               | 2        | 7                   | 1        | 2                   |
| Hybrid/Single Occ. (2) | 123      | 12001               | 75       | 4188                |
| Violators              | 27       |                     | 23       |                     |
| TOTAL                  | 2019     | 12108               | 883      | 4216                |

| PERSONS                | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 79       | 14                  | 27       | 4                   |
| Buses                  | 385      | 735                 | 175      | 35                  |
| Carpools (1)           | 3634     | 134                 | 1525     | 45                  |
| Vanpools               | 20       | 70                  | 10       | 20                  |
| Hybrid/Single Occ. (2) | 123      | 12001               | 75       | 4188                |
| Violators              | 27       | _                   | 23       | _                   |
| TOTAL                  | 4268     | 12954               | 1835     | 4292                |

### **RATES**

| HOV Lane occupancy rate                     | 2.1 persons/veh | 2.1 persons/veh |
|---|-----------------|-----------------|
| Mixed Flow occupancy rate                   | 1.1 persons/veh | 1.0 persons/veh |
| Overall occupancy (incl. buses)             | 1.2 persons/veh | 1.2 persons/veh |
| Violation rate <sup>(3)</sup><br>(HOV Lane) | 1.3 %           | 2.6 %           |

**NOTES:** (1) Two or more occupants per vehicle.

- (2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only
- (3) Violation rate = no. of violators in HOV lane x 100%Total no. of vehicles in HOV lane

Total no. of venicles in 110 v ta

- $(4) \ \ HOV\ lane\ in\ operation\ from\ 5:00\ to\ 9:00\ A.M.$
- (5) Observations conducted 06/10/10 at the Zanker Road I/C

### Westbound - P.M.

Route 880/237 I/C to Mathilda Avenue

Typical data for 2010 (5)

| P | F | K   | PF | RI | 0 | n | (4) |
|---|---|-----|----|----|---|---|-----|
|   |   | ••• |    |    | • | _ |     |

### **PEAK HOUR**

3:00 - 6:00 PM

5:00 - 6:00 PM

| VEHICLES               | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 12       | 13                  | 10       | 5                   |
| Buses                  | 2        | 16                  | 2        | 3                   |
| Carpools (1)           | 547      | 496                 | 270      | 111                 |
| Vanpools               | 0        | 0                   | 0        | 0                   |
| Hybrid/Single Occ. (2) | 65       | 9624                | 46       | 3860                |
| Violators              | 0        |                     | 0        |                     |
| TOTAL                  | 626      | 10149               | 328      | 3979                |

| PERSONS                | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 12       | 13                  | 10       | 5                   |
| Buses                  | 70       | 560                 | 70       | 105                 |
| Carpools (1)           | 1152     | 1034                | 571      | 235                 |
| Vanpools               | 0        | 0                   | 0        | 0                   |
| Hybrid/Single Occ. (2) | 65       | 9624                | 46       | 3860                |
| Violators              | 0        | _                   | 0        | _                   |
| TOTAL                  | 1299     | 11231               | 697      | 4205                |

### **RATES**

| HOV Lane occupancy rate                     | 2.1 persons/veh | 2.1 persons/veh |
|---|-----------------|-----------------|
| Mixed Flow occupancy rate                   | 1.1 persons/veh | 1.1 persons/veh |
| Overall occupancy (incl. buses)             | 1.2 persons/veh | 1.1 persons/veh |
| Violation rate <sup>(3)</sup><br>(HOV Lane) | 0.0 %           | 0.0 %           |

**NOTES:** (1) Two or more occupants per vehicle.

- (2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only
- (3) Violation rate = no. of violators in HOV lane x 100% Total no. of vehicles in HOV lane

(4) HOV lane in operation from 3:00 to 7:00 P.M.

- (5) 01
- (5) Observations conducted 03/09/10 at the Zanker Road I/C

### Eastbound - P.M.

Mathilda Avenue to Route 880/237

Typical data for 2010 (5)

| P | FΔ | K   | PF | ER. | IO | D | (4) |
|---|----|-----|----|-----|----|---|-----|
|   |    | 111 | Г  | _17 | w  | u |     |

### **PEAK HOUR**

3:00 - 6:00 PM

3:00 - 4:00 PM

| VEHICLES               | HOV Lane | Mixed Flow<br>Lanes |   | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|---|----------|---------------------|
| Motorcycles            | 62       | 13                  |   | 11       | 7                   |
| Buses                  | 14       | 12                  | _ | 2        | 8                   |
| Carpools (1)           | 1677     | 201                 | _ | 534      | 133                 |
| Vanpools               | 5        | 0                   | _ | 0        | 0                   |
| Hybrid/Single Occ. (2) | 176      | 10067               | _ | 37       | 3552                |
| Violators              | 40       |                     | _ | 36       |                     |
| TOTAL                  | 1974     | 10293               |   | 620      | 3700                |

| PERSONS                | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 62       | 13                  | 11       | 7                   |
| Buses                  | 490      | 420                 | 70       | 280                 |
| Carpools (1)           | 3434     | 430                 | 1093     | 283                 |
| Vanpools               | 50       | 0                   | 0        | 0                   |
| Hybrid/Single Occ. (2) | 176      | 10067               | 37       | 3552                |
| Violators              | 40       | _                   | 36       | _                   |
| TOTAL                  | 4252     | 10930               | 1247     | 4122                |

### **RATES**

| HOV Lane occupancy rate                     | 2.2 persons/veh | 2.0 persons/veh |
|---|-----------------|-----------------|
| Mixed Flow occupancy rate                   | 1.1 persons/veh | 1.1 persons/veh |
| Overall occupancy (incl. buses)             | 1.2 persons/veh | 1.2 persons/veh |
| Violation rate <sup>(3)</sup><br>(HOV Lane) | 2.0 %           | 5.8 %           |

**NOTES:** (1) Two or more occupants per vehicle.

- (2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only
- (3) Violation rate = no. of violators in HOV lane x 100%

- (4) HOV lane in operation from 3:00 to 7:00 P.M.
- (5) Observations conducted 03/10/10 at the Zanker Road I/C

# **Violation History**

Route 880/237 I/C to Mathilda Avenue

### Westbound

| ΔМ | PEAK |
|----|------|
| ,  | / \  |

| DATE             | PERIOD<br>MONITORED | TOTAL HOVL<br>VOLUME | VIOLATION<br>RATE |
|------------------|---------------------|----------------------|-------------------|
| Thu Jun 10, 2010 | 6:00 - 9:00 AM      | 2019                 | 1.3%              |
| Tue Sep 22, 2009 | 6:00 - 9:00 AM      | 2383                 | 2.9%              |
| Wed Dec 17, 2008 | 6:00 - 9:00 AM      | 2046                 | 0.6%              |
| Tue Sep 18, 2007 | 6:00 - 9:00 AM      | 2092                 | 0.1%              |
| Wed Apr 26, 2006 | 6:00 - 9:00 AM      | 1631                 | 0.3%              |
| Wed Nov 2, 2005  | 6:00 - 9:00 AM      | 1666                 | 3.1%              |
| Thu Nov 18, 2004 | 6:00 - 9:00 AM      | 1407                 | 0.9%              |
| Thu May 29, 2003 | 6:00 - 9:00 AM      | 1644                 | 0.0%              |
| Thu May 2, 2002  | 6:00 - 9:00 AM      | 1577                 | 3.7%              |
| Thu May 3, 2001  | 6:00 - 9:00 AM      | 1916                 | 5.3%              |
| Wed Nov 15, 2000 | 6:00 - 9:00 AM      | 2055                 | 2.7%              |

### P.M. PEAK

| Tue Mar 9, 2010  | 3:00 - 6:00 PM | 626  | 0.0%  |
|------------------|----------------|------|-------|
| Thu Oct 1, 2009  | 3:00 - 6:00 PM | 1099 | 1.2%  |
| Wed May 28, 2008 | 3:00 - 6:00 PM | 1072 | 0.6%  |
| Tue Jun 12, 2007 | 3:00 - 6:00 PM | 1641 | 8.2%  |
| Tue Mar 28, 2006 | 3:00 - 6:00 PM | 1008 | 4.3%  |
| Tue Oct 25, 2005 | 3:00 - 6:00 PM | 908  | 2.1%  |
| Thu Dec 9, 2004  | 3:00 - 5:15 PM | 493  | 10.8% |
| Thu Oct 9, 2003  | 3:00 - 6:00 PM | 698  | 5.6%  |
| Wed May 15, 2002 | 3:00 - 6:00 PM | 773  | 2.2%  |
| Wed May 30, 2001 | 3:00 - 6:00 PM | 1102 | 3.1%  |
| Wed Sep 13, 2000 | 3:00 - 6:00 PM | 1155 | 2.5%  |
|                  |                |      |       |

- **NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.
  - (b) Evening period of operation from 3:00 to 7:00 PM.

# **Violation History**

Mathilda Avenue to Route 880/237 I/C

### **Eastbound**

|           | DATE             | PERIOD<br>MONITORED | TOTAL HOVL<br>VOLUME | VIOLATION<br>RATE |
|-----------|------------------|---------------------|----------------------|-------------------|
| A.M. PEAK | Year 2010        | -                   | -                    | -                 |
|           | Year 2009        | -                   | -                    | -                 |
|           | Year 2008        | -                   | -                    | -                 |
|           | Thu Nov 29, 2007 | 6:00 - 9:00 AM      | 741                  | 0.4%              |
|           | Tue May 9, 2006  | 6:00 - 9:00 AM      | 710                  | 11.1%             |
|           | Year 2005        | -                   | -                    | -                 |
|           | Year 2004        | -                   | -                    | -                 |
|           | Year 2003        | -                   | -                    | -                 |
|           | Thu Oct 31, 2002 | 7:00 - 9:00 AM      | 561                  | 12.1%             |
|           | Thu Mar 29, 2001 | 6:00 - 9:00 AM      | 759                  | 15.0%             |
|           | Thu May 25, 2000 | 6:00 - 9:00 AM      | 536                  | 5.8%              |
|           |                  |                     |                      |                   |
| P.M. PEAK | Wed Mar 10, 2010 | 3:00 - 6:00 PM      | 1974                 | 2.0%              |
|           | Wed Jun 3, 2009  | 3:00 - 6:00 PM      | 1775                 | 1.4%              |
|           | Wed Apr 2, 2008  | 3:00 - 6:00 PM      | 1670                 | 1.0%              |
|           | Wed Mey 22, 2007 | 2:00 C:00 DM        | 0.400                | 0.40/             |

| Wed Mar 10, 2010 | 3:00 - 6:00 PM | 1974 | 2.0%  |
|------------------|----------------|------|-------|
| Wed Jun 3, 2009  | 3:00 - 6:00 PM | 1775 | 1.4%  |
| Wed Apr 2, 2008  | 3:00 - 6:00 PM | 1670 | 1.0%  |
| Wed May 23, 2007 | 3:00 - 6:00 PM | 2433 | 0.1%  |
| Thu May 11, 2006 | 3:00 - 6:00 PM | 1671 | 4.2%  |
| Thu Oct 6, 2005  | 3:00 - 6:00 PM | 1746 | 13.3% |
| Wed Dec 1, 2004  | 3:00 - 5:00 PM | 1324 | 0.8%  |
| Tue Oct 14, 2003 | 3:00 - 6:00 PM | 1296 | 0.9%  |
| Wed May 1, 2002  | 3:00 - 6:00 PM | 1396 | 1.9%  |
| Thu May 3, 2001  | 3:00 - 6:00 PM | 1255 | 2.1%  |
| Tue Mar 21, 2000 | 4:00 - 7:00 PM | 2181 | 0.4%  |
|                  |                |      |       |

- **NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.
  - (b) Evening period of operation from 3:00 to 7:00 PM.
  - (c) Data was not collected in 2010 for off-peak direction

## Southbound - P.M.

Magdalena Avenue to Leland Avenue

Typical data for 2010 (5)

| D |    | K  | PE | D  |    |    | (4) |
|---|----|----|----|----|----|----|-----|
|   | ⊏₽ | ١n |    | =1 | IU | עי |     |

### **PEAK HOUR**

3:00 - 6:00 PM

5:00 - 6:00 PM

| VEHICLES               | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 8        | 14                  | 5        | 4                   |
| Buses                  | 3        | 2                   | 0        | 1                   |
| Carpools (1)           | 1121     | 856                 | 512      | 175                 |
| Vanpools               | 1        | 1                   | 0        | 1                   |
| Hybrid/Single Occ. (2) | 104      | 13410               | 67       | 4768                |
| Violators              | 0        |                     | 0        |                     |
| TOTAL                  | 1237     | 14283               | 584      | 4949                |

| PERSONS                | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 8        | 14                  | 5        | 4                   |
| Buses                  | 105      | 70                  | 0        | 35                  |
| Carpools (1)           | 2457     | 1829                | 1081     | 380                 |
| Vanpools               | 10       | 10                  | 0        | 10                  |
| Hybrid/Single Occ. (2) | 104      | 13410               | 67       | 4768                |
| Violators              | 0        |                     | 0        | _                   |
| TOTAL                  | 2684     | 15333               | 1153     | 5197                |

### **RATES**

| HOV Lane occupancy rate                     | 2.2 persons/veh | 2.0 persons/veh |
|---|-----------------|-----------------|
| Mixed Flow occupancy rate                   | 1.1 persons/veh | 1.1 persons/veh |
| Overall occupancy (incl. buses)             | 1.2 persons/veh | 1.1 persons/veh |
| Violation rate <sup>(3)</sup><br>(HOV Lane) | 0.0 %           | 0.0 %           |

**NOTES:** (1) Two or more occupants per vehicle.

- (2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only
- (3) Violation rate = no. of violators in HOV lane x 100%Total no. of vehicles in HOV lane

Total no. of venicles in 110 v tar

- (4) HOV lane in operation from 3:00 to 7:00 P.M.
- (5) Observations conducted 04/20/10 at the Wolfe Road I/C

### Northbound - A.M.

Leland Avenue to Magdalena Avenue

Typical data for 2010 (5)

| Р | FΔ | K | PF | RI | O                      | D | (4) |
|---|----|---|----|----|------------------------|---|-----|
|   | ᅳ  |   |    |    | $\mathbf{\mathcal{U}}$ | _ |     |

### **PEAK HOUR**

6:00 - 9:00 AM

7:00 - 8:00 AM

| VEHICLES               | HOV Lane | Mixed Flow<br>Lanes | _ | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|---|----------|---------------------|
| Motorcycles            | 43       | 24                  |   | 15       | 7                   |
| Buses                  | 13       | 34                  | _ | 3        | 10                  |
| Carpools (1)           | 1172     | 556                 | _ | 394      | 185                 |
| Vanpools               | 1        | 25                  | _ | 0        | 11                  |
| Hybrid/Single Occ. (2) | 69       | 14431               | _ | 23       | 5489                |
| Violators              | 9        |                     |   | 2        |                     |
| TOTAL                  | 1307     | 15070               |   | 437      | 5702                |

| PERSONS                | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 43       | 24                  | 15       | 7                   |
| Buses                  | 455      | 1190                | 105      | 350                 |
| Carpools (1)           | 2411     | 1244                | 831      | 409                 |
| Vanpools               | 10       | 250                 | 0        | 110                 |
| Hybrid/Single Occ. (2) | 69       | 14431               | 23       | 5489                |
| Violators              | 9        | _                   | 2        |                     |
| TOTAL                  | 2997     | 17139               | 976      | 6365                |

### **RATES**

| HOV Lane occupancy rate         | 2.3 persons/veh | 2.2 persons/veh |
|---------------------------------|-----------------|-----------------|
| Mixed Flow occupancy rate       | 1.1 persons/veh | 1.1 persons/veh |
| Overall occupancy (incl. buses) | 1.2 persons/veh | 1.2 persons/veh |
| Violation rate (3) (HOV Lane)   | 0.7 %           | 0.5 %           |

**NOTES:** (1) Two or more occupants per vehicle.

- (2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only
- (3) Violation rate = no. of violators in HOV lane x 100%Total no. of vehicles in HOV lane

(4) HOV lane in operation from 5:00 to 9:00 A.M.

- (5) Observations conducted 06/08/10 at the Wolfe Road I/C

# **Violation History**

Magdalena Avenue to Leland Avenue

### **Southbound**

| DATE             | PERIOD<br>MONITORED | TOTAL HOVL<br>VOLUME | VIOLATION<br>RATE |
|------------------|---------------------|----------------------|-------------------|
| Year 2010        | -                   | -                    | -                 |
| Year 2009        | -                   | -                    | -                 |
| Year 2008        | -                   | -                    | -                 |
| Year 2007        | -                   | -                    | -                 |
| Year 2006        | -                   | -                    | -                 |
| Year 2005        | -                   | -                    | -                 |
| Year 2004        | -                   | -                    | -                 |
| Year 2003        | -                   | -                    | -                 |
| Thu Apr 18, 2002 | 6:30 - 9:00 AM      | 372                  | 4.6%              |
| Thu Apr 5, 2001  | 6:00 - 9:00 AM      | 524                  | 2.7%              |
| Thu Apr 13, 2000 | 6:00 - 9:00 AM      | 474                  | 9.3%              |

### P.M. PEAK

A.M. PEAK

| Tue Apr 20, 2010 | 3:00 - 6:00 PM | 1237 | 0.0% |
|------------------|----------------|------|------|
| Thu Nov 12, 2009 | 3:00 - 6:00 PM | 2309 | 0.5% |
| Thu Dec 4, 2008  | 3:00 - 6:00 PM | 2606 | 2.0% |
| Tue Apr 10, 2007 | 3:00 - 6:00 PM | 2404 | 0.0% |
| Thu Apr 27, 2006 | 3:00 - 6:00 PM | 1569 | 3.5% |
| Tue Dec 13, 2005 | 3:00 - 6:00 PM | 2469 | 0.0% |
| Tue Nov 2, 2004  | 3:00 - 5:30 PM | 1817 | 2.3% |
| Thu Jun 12, 2003 | 3:00 - 5:30 PM | 1756 | 1.0% |
| Thu Sep 19, 2002 | 3:00 - 6:00 PM | 1933 | 0.6% |
| Thu Oct 11, 2001 | 3:00 - 6:00 PM | 2221 | 1.0% |
| Wed Oct 11, 2000 | 3:00 - 6:00 PM | 2325 | 5.0% |
|                  |                |      |      |

- **NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.
  - (b) Evening period of operation from 3:00 to 7:00 PM.
  - (c) Data was not collected in 2010 for off-peak direction

# **Violation History**

Leland Avenue to Magdalena Avenue

### **Northbound**

|           | DATE             | PERIOD<br>MONITORED | TOTAL HOVL<br>VOLUME | VIOLATION<br>RATE |
|-----------|------------------|---------------------|----------------------|-------------------|
| A.M. PEAK | Tue Jun 8, 2010  | 6:00 - 9:00 AM      | 1307                 | 0.7%              |
|           | Thu Apr 23, 2009 | 6:00 - 9:00 AM      | 1559                 | 0.5%              |
|           | Thu May 29, 2008 | 6:00 - 9:00 AM      | 1772                 | 0.9%              |
|           | Thu Dec 5, 2007  | 6:00 - 9:00 AM      | 2105                 | 0.7%              |
|           | Thu Dec 14, 2006 | 6:00 - 9:00 AM      | 1843                 | 0.1%              |
|           | Tue Mar 8, 2005  | 6:00 - 9:00 AM      | 1602                 | 0.8%              |
|           | Thu Oct 7, 2004  | 6:00 - 9:00 AM      | 2213                 | 2.4%              |
|           | Thu Jun 5, 2003  | 6:00 - 9:00 AM      | 1558                 | 7.4%              |
|           | Tue May 21, 2002 | 6:00 - 9:00 AM      | 1355                 | 5.4%              |
|           | Tue Nov 6, 2001  | 6:00 - 9:00 AM      | 1253                 | 1.6%              |
|           | Wed Mar 29, 2000 | 6:00 - 9:00 AM      | 2086                 | 1.7%              |
|           |                  |                     |                      |                   |

### P.M. PEAK

| Year 2010        | -              | -    | -    |
|------------------|----------------|------|------|
| Year 2009        | -              | -    | -    |
| Year 2008        | -              | -    | -    |
| Year 2007        | -              | -    | -    |
| Year 2006        | -              | -    | -    |
| Year 2005        | -              | -    | -    |
| Year 2004        | -              | -    | -    |
| Year 2003        | -              | -    | -    |
| Tue May 28, 2002 | 3:00 - 6:00 PM | 1081 | 1.5% |
| Wed Apr 4, 2001  | 3:00 - 6:00 PM | 1160 | 0.9% |
| Thu Apr 13, 2000 | 3:00 - 6:00 PM | 1106 | 5.4% |
|                  |                |      |      |

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.

- (b) Evening period of operation from 3:00 to 7:00 PM.
- (c) Data was not collected in 2010 for off-peak direction

## Southbound - P.M.

Alameda County Line to Route 237

Typical data for 2010 (5)

| <b>PEAK</b> | <b>PERIOD</b> | (4) |
|-------------|---------------|-----|
|-------------|---------------|-----|

### **PEAK HOUR**

3:00 - 6:00 PM

4:00 - 5:00 PM

| VEHICLES               | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 27       | 24                  | 9        | 8                   |
| Buses                  | 2        | 11                  | 0        | 5                   |
| Carpools (1)           | 1211     | 1394                | 450      | 493                 |
| Vanpools               | 24       | 6                   | 7        | 1                   |
| Hybrid/Single Occ. (2) | 22       | 10230               | 7        | 4558                |
| Violators              | 45       |                     | 5        |                     |
| TOTAL                  | 1331     | 11665               | 478      | 5065                |

| PERSONS                | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 27       | 24                  | 9        | 8                   |
| Buses                  | 70       | 385                 | 0        | 175                 |
| Carpools (1)           | 2497     | 2992                | 923      | 1059                |
| Vanpools               | 240      | 60                  | 70       | 10                  |
| Hybrid/Single Occ. (2) | 22       | 10230               | 7        | 4558                |
| Violators              | 45       | _                   | 5        | _                   |
| TOTAL                  | 2901     | 13691               | 1014     | 5810                |

### **RATES**

| HOV Lane occupancy rate                     | 2.2 persons/veh | 2.1 persons/veh |
|---|-----------------|-----------------|
| Mixed Flow occupancy rate                   | 1.2 persons/veh | 1.1 persons/veh |
| Overall occupancy (incl. buses)             | 1.3 persons/veh | 1.2 persons/veh |
| Violation rate <sup>(3)</sup><br>(HOV Lane) | 3.4 %           | 1.0 %           |

**NOTES:** (1) Two or more occupants per vehicle.

- (2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only
- (3) Violation rate =  $\underline{no. of violators in HOV lane \ x \ 100\%}$

- (4) HOV lane in operation from 3:00 to 7:00 P.M.
- (5) Observations conducted 04/15/10 at Jackson Street I/C

# **Violation History**

Alameda Co. Line to Route 237 Calaveras Blvd

### **Southbound**

| DATE             | PERIOD<br>MONITORED | TOTAL HOVL<br>VOLUME   | VIOLATION<br>RATE   |
|------------------|---------------------|--|---|
| Year 2010        | _                   | _  |   |
| Thu May 21, 2009 | 6:00-9:00 A.M       | 1203   | 4.1%  |
| Thu Apr 15, 2010 | 3:00-6:00 P.M       | 1331   | 3.4%  |
| <u>.</u>         |                     |  | 1.0%  |
|                  | Year 2010           | Year 2010 - Thu May 21, 2009 6:00-9:00 A.M  Thu Apr 15, 2010 3:00-6:00 P.M | Year 2010         -         -           Thu May 21, 2009         6:00-9:00 A.M         1203           Thu Apr 15, 2010         3:00-6:00 P.M         1331 |

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.

- (b) Evening period of operation from 3:00 to 7:00 PM.
- $(c) \ \textit{Data was not collected in 2010 for off-peak direction}$

# **SAN FRANCISCO-80**

### **HOV RAMP**

Sterling Street on-ramp to SFOBB

### Eastbound-P.M.

Typical data for 2010

### PEAK PERIOD (4)

3:30 - 7:00 PM

### **PEAK HOUR**

5:00 - 6:00 PM

| VEHICLES                                    | HOV Lane | SOV Lane    | HOV Lane | SOV Lane    |
|---|----------|-------------|----------|-------------|
| Motorcycles                                 | 134      | _           | 41       | _           |
| Buses                                       | 13       |             | 4        | _           |
| Carpool (1)                                 | 1492     | _           | 476      | _           |
| 2 - seaters (2)                             | 468      | <u> </u>    | 167      | _           |
| Hybrid                                      | 326      | <u> </u>    | 113      | _           |
| Vanpools                                    | 62       | <u> </u>    | 24       | _           |
| Trucks                                      | 30       | <u> </u>    | 11       | _           |
| Violators                                   | 693      | _           | 176      |             |
| TOTAL                                       | 3218     | N/A         | 1012     | N/A         |
| PERSONS                                     | HOV Lane | SOV Lane    | HOV Lane | SOV Lane    |
| Motorcycles                                 | 134      | _           | 41       | _           |
| Buses                                       | 455      | <u> </u>    | 140      |             |
| Carpool (1)                                 | 4625     |             | 1476     |             |
| 2 - seaters (2)                             | 936      | <u> </u>    | 334      |             |
| Hybrid                                      | 326      |             | 113      |             |
| Vanpools                                    | 620      |             | 240      |             |
| Trucks                                      | 30       | <u> </u>    | 11       |             |
| Violators                                   | 1089     | _           | 305      | _           |
| TOTAL                                       | 8215     | N/A         | 2660     | N/A         |
| RATES                                       |          |             |          |             |
| HOV Lane occupancy rate                     | 2.6      | persons/veh | 2.6      | persons/veh |
| Violation rate <sup>(3)</sup><br>(HOV Lane) | 21.5     | %           | 17.4     | 4 %         |
|   |          |             |          |             |

- **NOTES:** (1) 3 or more persons per vehicle.
  - (2) 2 seater vehicles with 2 persons.
  - (3) Violation rate = no. of violators in HOV lane x 100%

- (4) HOV lane in operation from 3:30 to 7:00 PM.
- (5) Observations conducted 3/23/10 at the Sterling Street on-ramp

### SAN FRANCISCO-80 HOV RAMP

# **Violation History**

**Eastbound** 

Sterling Street On-Ramp to SFOBB

P.M. PEAK

| DATE             | PERIOD<br>MONITORED | VOLUME | VIOLATION<br>RATE |
|------------------|---------------------|--------|-------------------|
| Sun May 23, 2010 | 3:30 - 7:00 PM      | 3218   | 21.5%             |
| Tue Mar 17, 2009 | 3:30 - 7:00 PM      | 3108   | 23.6%             |
| Wed Oct 1, 2008  | 3:30 - 7:00 PM      | 3161   | 23.5%             |
| Thu Sep 20, 2007 | 3:30 - 7:00 PM      | 3223   | 10.6%             |
| Tue Sep 12, 2006 | 3:30 - 7:00 PM      | 3411   | 23.0%             |
| Tue Mar 8, 2005  | 3:30 - 7:00 PM      | 3391   | 24.4%             |
| Tue Oct 12, 2004 | 3:30 - 7:00 PM      | 3161   | 20.2%             |
| Wed Apr 30, 2003 | 3:30 - 7:00 PM      | 2185   | 22.6%             |
| Tue Sep 17, 2002 | 3:30 - 7:00 PM      | 2713   | 15.1%             |
| Wed Oct 10, 2001 | 3:30 - 7:00 PM      | 3133   | 10.4%             |
| Thu Oct 19, 2000 | 3:30 - 7:00 PM      | 3327   | 6.5%              |
|                  |                     |        |                   |

**NOTES:** Evening period of operation from 3:30 to 7:00 P.M.

## Southbound - A.M.

Whipple Avenue to SM/SCL County Line

Typical data for 2010 (5)

| <b>PEAK</b> | <b>PERIOD</b> | (4) |
|-------------|---------------|-----|
|-------------|---------------|-----|

### **PEAK HOUR**

6:00 - 9:00 AM

8:00 - 9:00 AM

| VEHICLES               | HOV Lane | Mixed Flow<br>Lanes |   | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|---|----------|---------------------|
| Motorcycles            | 69       | 51                  |   | 22       | 8                   |
| Buses                  | 41       | 17                  | _ | 27       | 6                   |
| Carpools (1)           | 973      | 863                 | _ | 436      | 378                 |
| Vanpools               | 7        | 10                  | _ | 3        | 0                   |
| Hybrid/Single Occ. (2) | 263      | 17032               | _ | 134      | 6629                |
| Violators              | 82       |                     |   | 34       |                     |
| TOTAL                  | 1435     | 17973               |   | 656      | 7021                |

| PERSONS                 | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|-------------------------|----------|---------------------|----------|---------------------|
| Motorcycles             | 69       | 51                  | 22       | 8                   |
| Buses                   | 1435     | 595                 | 945      | 210                 |
| Carpools <sup>(1)</sup> | 2176     | 1878                | 979      | 823                 |
| Vanpools                | 70       | 100                 | 30       | 0                   |
| Hybrid/Single Occ. (2)  | 263      | 17032               | 134      | 6629                |
| Violators               | 82       |                     | 34       |                     |
| TOTAL                   | 4095     | 19656               | 2144     | 7670                |

#### **RATES**

| HOV Lane occupancy rate                     | 2.9 persons/veh | 3.3 persons/veh |
|---|-----------------|-----------------|
| Mixed Flow occupancy rate                   | 1.1 persons/veh | 1.1 persons/veh |
| Overall occupancy (incl. buses)             | 1.2 persons/veh | 1.3 persons/veh |
| Violation rate <sup>(3)</sup><br>(HOV Lane) | 5.7 %           | 5.2 %           |

- (2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only
- (3) Violation rate = no. of violators in HOV lane x 100% Total no. of vehicles in HOV lane

- (4) HOV lane in operation from 5:00 to 9:00 A.M.
- (5) Observations conducted 06/03/10 at the Woodside Road I/C

## Southbound - P.M.

Whipple Avenue to SM/SCL County Line

Typical data for 2010 (5)

### PEAK PERIOD (4)

### **PEAK HOUR**

3:00 - 6:00 PM

4:00 - 5:00 PM

| VEHICLES               | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 105      | 21                  | 28       | 8                   |
| Buses                  | 17       | 7                   | 4        | 6                   |
| Carpools (1)           | 1520     | 999                 | 418      | 282                 |
| Vanpools               | 14       | 5                   | 1        | 2                   |
| Hybrid/Single Occ. (2) | 105      | 17282               | 28       | 6052                |
| Violators              | 23       |                     | 3        |                     |
| TOTAL                  | 1784     | 18314               | 482      | 6350                |

| PERSONS                | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 105      | 21                  | 28       | 8                   |
| Buses                  | 595      | 245                 | 140      | 210                 |
| Carpools (1)           | 3142     | 2109                | 849      | 589                 |
| Vanpools               | 140      | 50                  | 10       | 20                  |
| Hybrid/Single Occ. (2) | 105      | 17282               | 28       | 6052                |
| Violators              | 23       | _                   | 3        | _                   |
| TOTAL                  | 4110     | 19707               | 1058     | 6879                |

### **RATES**

| HOV Lane occupancy rate                     | 2.3 persons/veh | 2.2 persons/veh |
|---|-----------------|-----------------|
| Mixed Flow occupancy rate                   | 1.1 persons/veh | 1.1 persons/veh |
| Overall occupancy (incl. buses)             | 1.2 persons/veh | 1.2 persons/veh |
| Violation rate <sup>(3)</sup><br>(HOV Lane) | 1.3 %           | 0.6 %           |

**NOTES:** (1) Two or more occupants per vehicle.

- (2) Hybrid HOV Lane only/Single occupancy mixed flow lanes only
- (3) Violation rate = no. of violators in HOV lane x 100%

- (4) HOV lane in operation from 3:00 to 7:00 P.M.
- (5) Observations conducted 03/24/10 at Woodside Road I/C

### Northbound - A.M.

SM/SCL County Line to Whipple Avenue

Typical data for 2010 (5)

| <b>PEAK</b> | <b>PERIOD</b> | (4) |
|-------------|---------------|-----|
|-------------|---------------|-----|

### **PEAK HOUR**

6:00 - 9:00 AM

8:00 - 9:00 AM

| VEHICLES               | HOV Lane | Mixed Flow<br>Lanes |   | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|---|----------|---------------------|
| Motorcycles            | 14       | 8                   | _ | 3        | 0                   |
| Buses                  | 11       | 18                  | _ | 4        | 6                   |
| Carpools (1)           | 2560     | 479                 | _ | 961      | 156                 |
| Vanpools               | 29       | 10                  | _ | 7        | 0                   |
| Hybrid/Single Occ. (2) | 147      | 11650               | _ | 57       | 4680                |
| Violators              | 6        |                     | _ | 1        |                     |
| TOTAL                  | 2767     | 12165               |   | 1033     | 4842                |

| PERSONS                | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 14       | 8                   | 3        | 0                   |
| Buses                  | 385      | 630                 | 140      | 210                 |
| Carpools (1)           | 5206     | 1005                | 1952     | 338                 |
| Vanpools               | 290      | 100                 | 70       | 0                   |
| Hybrid/Single Occ. (2) | 147      | 11650               | 57       | 4680                |
| Violators              | 6        | _                   | 1        | _                   |
| TOTAL                  | 6048     | 13393               | 2223     | 5228                |

### **RATES**

| HOV Lane occupancy rate                     | 2.2 persons/veh | 2.2 persons/veh |
|---|-----------------|-----------------|
| Mixed Flow occupancy rate                   | 1.1 persons/veh | 1.1 persons/veh |
| Overall occupancy (incl. buses)             | 1.3 persons/veh | 1.3 persons/veh |
| Violation rate <sup>(3)</sup><br>(HOV Lane) | 0.2 %           | 0.1 %           |

**NOTES:** (1) Two or more occupants per vehicle.

- (2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only
- (3) Violation rate =  $\underline{no. of violators in HOV lane \ x \ 100\%}$

- (4) HOV lane in operation from 5:00 to 9:00 A.M.
- (5) Observations conducted 05/27/10 at the Woodside Road I/C

### Northbound - P.M.

SM/SCL County Line to Whipple Avenue

Typical data for 2010 (5)

### PEAK PERIOD (4)

### **PEAK HOUR**

3:00 - 6:00 PM

4:00 - 5:00 PM

| VEHICLES               | HOV Lane | Mixed Flow<br>Lanes |   | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|---|----------|---------------------|
| Motorcycles            | 33       | 26                  | _ | 17       | 4                   |
| Buses                  | 6        | 23                  | _ | 1        | 6                   |
| Carpools (1)           | 2177     | 849                 |   | 732      | 249                 |
| Vanpools               | 13       | 10                  |   | 4        | 2                   |
| Hybrid/Single Occ. (2) | 197      | 10282               | _ | 70       | 3574                |
| Violators              | 6        | _                   | _ | 1        | _                   |
| TOTAL                  | 2432     | 11190               | _ | 825      | 3835                |

| PERSONS                | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 33       | 26                  | 17       | 4                   |
| Buses                  | 210      | 805                 | 35       | 210                 |
| Carpools (1)           | 4428     | 1793                | 1490     | 527                 |
| Vanpools               | 130      | 100                 | 40       | 20                  |
| Hybrid/Single Occ. (2) | 197      | 10282               | 70       | 3574                |
| Violators              | 6        |                     | 1        |                     |
| TOTAL                  | 5004     | 13006               | 1653     | 4335                |

### **RATES**

| HOV Lane occupancy rate                     | 2.1 persons/veh | 2.0 persons/veh |
|---|-----------------|-----------------|
| Mixed Flow occupancy rate                   | 1.2 persons/veh | 1.1 persons/veh |
| Overall occupancy (incl. buses)             | 1.3 persons/veh | 1.3 persons/veh |
| Violation rate <sup>(3)</sup><br>(HOV Lane) | 0.2 %           | 0.1 %           |

**NOTES:** (1) Two or more occupants per vehicle.

- (2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only
- (3) Violation rate =  $\underline{no. of violators in HOV lane \ x \ 100\%}$

- (4) HOV lane in operation from 3:00 to 7:00 P.M.
- (5) Observations conducted 06/02/10 at the Woodside Road I/C

# **Violation History**

Whipple Avenue to the SM/SCL County Line

### Southbound

### A.M. PEAK

| DATE             | PERIOD<br>MONITORED | TOTAL HOVL<br>VOLUME | VIOLATION<br>RATE |
|------------------|---------------------|----------------------|-------------------|
| Thu Jun 3, 2010  | 6:00 - 9:00 AM      | 1435                 | 5.7%              |
| Thu May 14, 2009 | 6:00 - 9:00 AM      | 1547                 | 0.8%              |
| Tue Apr 15, 2008 | 6:00 - 9:00 AM      | 1322                 | 1.4%              |
| Thu Dec 13, 2007 | 6:00 - 9:00 AM      | 1972                 | 0.6%              |
| Wed May 31, 2006 | 6:00 - 9:00 AM      | 1238                 | 0.8%              |
| Thu Mar 10, 2005 | 6:00 - 9:00 AM      | 1177                 | 1.4%              |
| Wed Dec 15, 2004 | 7:00 - 9:00 AM      | 1355                 | 0.1%              |
| Wed Apr 9, 2003  | 6:00 - 9:00 AM      | 1701                 | 0.6%              |
| Tue Mar 26, 2002 | 6:00 - 9:00 AM      | 1549                 | 3.5%              |
| Thu Mar 22, 2001 | 6:00 - 9:00 AM      | 1746                 | 2.2%              |
| Tue Apr 25, 2000 | 6:00 - 9:00 AM      | 1849                 | 7.0%              |

### P.M. PEAK

| Wed Mar 24, 2010 | 3:00 - 6:00 PM | 1784 | 1.3% |
|------------------|----------------|------|------|
| Thu Oct 22, 2009 | 3:00 - 6:00 PM | 2177 | 8.5% |
| Thu Oct 2, 2008  | 3:00 - 6:00 PM | 2788 | 0.8% |
| Thu May 24, 2007 | 3:00 - 6:00 PM | 2070 | 3.8% |
| Tue Jun 13, 2006 | 3:00 - 6:00 PM | 1754 | 0.5% |
| Wed Sep 28, 2005 | 3:00 - 6:00 PM | 1568 | 1.5% |
| Tue Oct 26, 2004 | 3:00 - 6:00 PM | 1296 | 1.5% |
| Wed May 14, 2003 | 3:00 - 6:00 PM | 1488 | 2.5% |
| Wed Oct 2, 2002  | 3:00 - 6:00 PM | 1895 | 3.2% |
| Thu Nov 8, 2001  | 3:00 - 5:30 PM | 1685 | 7.0% |
| Thu Oct 12, 2000 | 3:00 - 6:00 PM | 2245 | 3.3% |
|                  |                |      |      |

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.

(b) Evening period of operation from 3:00 to 7:00 PM.

# **Violation History**

SM/SCL County Line to Whipple Avenue

### **Northbound**

**VIOLATION** 

### A.M. PEAK

| DATE             | MONITORED      | VOLUME | RATE |
|------------------|----------------|--------|------|
| Thu May 27, 2010 | 6:00 - 9:00 AM | 2767   | 0.2% |
| Thu Nov 19, 2009 | 6:00 - 9:00 AM | 3018   | 0.3% |
| Tue Mar 13, 2007 | 6:00 - 9:00 AM | 2478   | 0.8% |
| Thu Oct 26, 2006 | 6:00 - 9:00 AM | 1573   | 0.2% |
| Wed Apr 6, 2005  | 6:00 - 9:00 AM | 1409   | 0.5% |
| Wed Dec 1, 2004  | 6:00 - 9:00 AM | 1337   | 0.7% |
| Thu Oct 9, 2003  | 7:00 - 9:00 AM | 1031   | 1.5% |
| Tue Apr 9, 2002  | 6:45 - 9:00 AM | 865    | 5.7% |
| Wed Oct 31, 2001 | 6:00 - 9:00 AM | 1662   | 2.1% |
| Thu Oct 12, 2000 | 6:00 - 9:00 AM | 2964   | 4.7% |

**PERIOD** 

**TOTAL HOVL** 

### P.M. PEAK

| Wed Jun 2, 2010  | 3:00 - 6:00 PM | 2432 | 0.2%  |
|------------------|----------------|------|-------|
| Thu May 14, 2009 | 3:00 - 6:00 PM | 2262 | 0.5%  |
| Thu Nov 29, 2007 | 3:00 - 6:00 PM | 2508 | 7.3%  |
| Thu Jun 1, 2006  | 3:00 - 6:00 PM | 2343 | 0.0%  |
| Tue Oct 4, 2005  | 3:00 - 6:00 PM | 2025 | 0.4%  |
| Thu Oct 28, 2004 | 3:00 - 6:00 PM | 1929 | 0.1%  |
| Tue Apr 8, 2003  | 3:00 - 6:00 PM | 2327 | 2.0%  |
| Wed Jun 5, 2002  | 3:00 - 6:00 PM | 1969 | 3.4%  |
| Wed Nov 14, 2001 | 3:00 - 5:30 PM | 1675 | 0.2%  |
| Tue Sep 12, 2000 | 3:00 - 6:00 PM | 2329 | 14.3% |
|                  |                |      |       |

**NOTES:** (a) Morning period of operation from 5:00 to 9:00 AM.

(b) Evening period of operation from 3:00 to 7:00 PM.

### Eastbound - P.M.

Carquinez Bridge Toll Plaza

Typical data for 2010

(6)

### PEAK PERIOD (5)

### PEAK HOUR

3:00 to 7:00 P.M.

5:00 to 6:00 P.M.

| 0.00 10 1 | .00 P.IVI.  |  | 5.00 to 6.00 P.W.  |   |
|-----------|---|--|--|---|
| HOV Lane  | Mixed Flow<br>Lanes   |  | HOV Lane   | Mixed Flow<br>Lanes   |
| 202       | _   |  | 55   | _   |
| 11        | _   |  | 3  | _   |
| 1956      | _   |  | 519  |   |
| 540       | <del>_</del>  |  | 150  | <u> </u>  |
| 144       | <u> </u>  |  | 50   |   |
| 121       | <u> </u>  |  | 33   |   |
| 206       | _   |  | 39   |   |
| 3180      | 15126   | (7)  | 849  | 3971  |
| HOV Lane  | Mixed Flow<br>Lanes   |  | HOV Lane   | Mixed Flow<br>Lanes   |
| 202       | _   |  | 55   |   |
| 385       | _   |  | 105  | _   |
| 6064      | <u> </u>  |  | 1609   |   |
| 1080      |   |  | 300  |   |
| 144       |   |  | 50   |   |
| 1210      | <u> </u>  |  | 330  |   |
| 352       | _   |  | 61   |   |
| 9437      | 16639   | (7)  | 2510   | 4368  |
|           |   |  |  |   |
| 3.0       | persons/veh   |  | 3.0  | persons/veh   |
| 1.1       | persons/veh   | - <b>-</b>   | 1.1  | persons/veh   |
| 6.5       | %   |  | 4.6  | %   |
|           | HOV Lane  202 11 1956 540 144 121 206 3180  HOV Lane  202 385 6064 1080 144 1210 352 9437  3.0  1.1 | HOV Lane Mixed Flow Lanes  202 — 11 — 1956 — 540 — 144 — 121 — 206 — 3180 15126  HOV Lane Mixed Flow Lanes  202 — 385 — 6064 — 1080 — 144 — 1210 — 352 — | HOV Lane       Mixed Flow Lanes         202       —         11       —         1956       —         540       —         144       —         121       —         206       —         3180       15126         Mixed Flow Lanes         202       —         385       —         6064       —         1080       —         144       —         352       —         9437       16639         3.0 persons/veh | HOV Lane         Mixed Flow Lanes         HOV Lane           202         —         55           11         —         3           1956         —         519           540         —         150           144         —         50           121         —         33           206         —         39           3180         15126         (7)         849           HOV Lane         HOV Lane         HOV Lane           202         —         55           385         —         105           6064         —         1609           1080         —         300           144         —         50           1210         —         330           352         —         61           9437         16639         (7)         2510           3.0         persons/veh         1.1 |

- **NOTES:** (1) 3 or more persons per vehicle.
  - (2) 2 seater vehicles with 2 persons.
  - (3) Violation rate = no. of violators in HOV lane x 100%Total no. of vehicles in HOV lane
  - (4) Assumed PM bus occupancy = 35 persons/vehicle.
  - (5) HOV lane in operation from 3:00 to 7:00 P.M.
  - (6) Observations conducted 3/23/10 at the Carquinez Bridge Toll Plaza.
  - (7) Data from Toll Plaza vehicle Registration Report.

### Carquinez Bridge Toll Plaza

# **Violation History**

### **Eastbound**

**VIOLATION** 

### A.M. PEAK

| DATE             | MONITORED       | VOLUME | RATE  |
|------------------|-----------------|--------|-------|
| Year 2010        | -               | -      | -     |
| Year 2009        | -               | -      | -     |
| Year 2008        | -               | -      | -     |
| Year 2007        | -               | -      | -     |
| Year 2006        | -               | -      | -     |
| Year 2005        | -               | -      | -     |
| Year 2004        | -               | -      | -     |
| Year 2003        | -               | -      | -     |
| Thu Nov 14, 2002 | 5:00 - 10:00 AM | 706    | 10.1% |
| Thu May 31, 2001 | 5:00 - 10:00 AM | 804    | 24.5% |
| Thu Nov 16, 2000 | 5:00 - 10:00 AM | 773    | 34.4% |

PERIOD

TOTAL HOVL

### P.M. PEAK

| Tue Mar 23, 2010 | 3:00 - 7:00 PM | 3180 | 6.5%  |
|------------------|----------------|------|-------|
| Wed Mar 18, 2009 | 3:00 - 7:00 PM | 3465 | 12.9% |
| Wed Apr 2, 2008  | 3:00 - 7:00 PM | 3459 | 13.4% |
| Tue Sep 18, 2007 | 3:00 - 7:00 PM | 3452 | 10.1% |
| Thu Sep 14, 2006 | 3:00 - 7:00 PM | 3285 | 11.0% |
| Wed Sep 14, 2005 | 3:00 - 7:00 PM | 3523 | 6.0%  |
| Wed Oct 13, 2004 | 3:00 - 7:00 PM | 3342 | 9.4%  |
| Thu May 15, 2003 | 3:00 - 7:00 PM | 3360 | 8.8%  |
| Thu Sep 26, 2002 | 3:00 - 7:00 PM | 3429 | 9.5%  |
| Thu Mar 29, 2001 | 3:00 - 7:00 PM | 3493 | 1.2%  |
| Tue Oct 17, 2000 | 3:00 - 7:00 PM | 3373 | 9.5%  |
|                  |                |      |       |

- **NOTES:** (a) Morning period of operation from 5:00 to 10:00 AM
  - (b) Evening period of operation from 3:00 to 7:00 PM.
  - (c) Data was not collected in 2010 for off-peak direction

### Westbound - A.M.

Typical data for 2010 (5)

Airbase Parkway to Red Top Road

| PF | =Δ | K | ΡI | FR | 210 | חו | (4) |
|----|----|---|----|----|-----|----|-----|
|    |    |   |    |    |     |    |     |

### **PEAK HOUR**

6:00 - 9:00 AM

7:00 - 8:00 AM

| VEHICLES               | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 31       | 42                  | 11       | 7                   |
| Buses                  | 5        | 24                  | 1        | 14                  |
| Carpools (1)           | 778      | 791                 | 302      | 327                 |
| Vanpools               | 8        | 13                  | 2        | 9                   |
| Hybrid/Single Occ. (2) | 44       | 10742               | 18       | 4016                |
| Violators              | 26       |                     | 13       |                     |
| TOTAL                  | 892      | 11612               | 347      | 4373                |

| PERSONS                | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 31       | 42                  | 11       | 7                   |
| Buses                  | 175      | 840                 | 35       | 490                 |
| Carpools (1)           | 1603     | 1640                | 630      | 685                 |
| Vanpools               | 80       | 130                 | 20       | 90                  |
| Hybrid/Single Occ. (2) | 44       | 10742               | 18       | 4016                |
| Violators              | 26       | _                   | 13       | _                   |
| TOTAL                  | 1959     | 13394               | 727      | 5288                |

### **RATES**

| HOV Lane occupancy rate                     | 2.2 persons/veh | 2.1 persons/veh |
|---|-----------------|-----------------|
| Mixed Flow occupancy rate                   | 1.2 persons/veh | 1.2 persons/veh |
| Overall occupancy (incl. buses)             | 1.2 persons/veh | 1.3 persons/veh |
| Violation rate <sup>(3)</sup><br>(HOV Lane) | 2.9 %           | 3.7 %           |

**NOTES:** (1) Two or more occupants per vehicle.

- (2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only.
- (3) Violation rate = no. of violators in HOV lane x 100%Total no. of vehicles in HOV lane

(4) HOV lane in operation from 5:00 to 10:00 A.M.

(5) Observations conducted 04/22/10 at Green Valley Road Park&Ride.

### Westbound - P.M.

Typical data for 2010 (5)

Airbase Parkway to Red Top Road

### PEAK PERIOD (4)

### **PEAK HOUR**

3:00 - 6:00 PM

3:00 - 4:00 PM

| VEHICLES               | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 3        | 6                   | 2        | 0                   |
| Buses                  | 12       | 15                  | 7        | 7                   |
| Carpools (1)           | 685      | 879                 | 210      | 324                 |
| Vanpools               | 4        | 8                   | 0        | 1                   |
| Hybrid/Single Occ. (2) | 22       | 7263                | 5        | 2580                |
| Violators              | 24       |                     | 11       |                     |
| TOTAL                  | 750      | 8171                | 235      | 2912                |

| PERSONS                | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 3        | 6                   | 2        | 0                   |
| Buses                  | 420      | 525                 | 245      | 245                 |
| Carpools (1)           | 1455     | 1820                | 452      | 669                 |
| Vanpools               | 40       | 80                  | 0        | 10                  |
| Hybrid/Single Occ. (2) | 22       | 7263                | 5        | 2580                |
| Violators              | 24       | _                   | 11       | _                   |
| TOTAL                  | 1964     | 9694                | 715      | 3504                |

#### **RATES**

| HOV Lane occupancy rate                     | 2.6 persons/veh | 3.0 persons/veh |
|---|-----------------|-----------------|
| Mixed Flow occupancy rate                   | 1.2 persons/veh | 1.2 persons/veh |
| Overall occupancy (incl. buses)             | 1.3 persons/veh | 1.3 persons/veh |
| Violation rate <sup>(3)</sup><br>(HOV Lane) | 3.2 %           | 4.7 %           |

- (2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only.
- (3) Violation rate = no. of violators in HOV lane x 100%

  Total no. of vehicles in HOV lane
- (4) HOV lane in operation from 3:00 to 7:00 P.M.
- (5) Observations conducted 04/28/10 at Green Valley Road Park&Ride.

### Eastbound - A.M.

Red Top Road to Airbase Parkway

Typical data for 2010 (5)

| P | FΔ | K   | PF | ER. | IO | D | (4) |
|---|----|-----|----|-----|----|---|-----|
|   |    | 111 | Г  | _17 | w  | u |     |

### **PEAK HOUR**

6:00 - 9:00 AM

8:00 - 9:00 AM

| VEHICLES               | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 11       | 25                  | 4        | 17                  |
| Buses                  | 9        | 16                  | 8        | 8                   |
| Carpools (1)           | 421      | 815                 | 167      | 400                 |
| Vanpools               | 7        | 13                  | 2        | 5                   |
| Hybrid/Single Occ. (2) | 18       | 8131                | 8        | 3226                |
| Violators              | 7        |                     | 2        |                     |
| TOTAL                  | 473      | 9000                | 191      | 3656                |

| PERSONS                | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 11       | 25                  | 4        | 17                  |
| Buses                  | 315      | 560                 | 280      | 280                 |
| Carpools (1)           | 884      | 1709                | 353      | 845                 |
| Vanpools               | 70       | 130                 | 20       | 50                  |
| Hybrid/Single Occ. (2) | 18       | 8131                | 8        | 3226                |
| Violators              | 7        |                     | 2        |                     |
| TOTAL                  | 1305     | 10555               | 667      | 4418                |

### **RATES**

| HOV Lane occupancy rate                     | 2.8 persons/veh | 3.5 persons/veh |
|---|-----------------|-----------------|
| Mixed Flow occupancy rate                   | 1.2 persons/veh | 1.2 persons/veh |
| Overall occupancy (incl. buses)             | 1.3 persons/veh | 1.3 persons/veh |
| Violation rate <sup>(3)</sup><br>(HOV Lane) | 1.5 %           | 1.0 %           |

- (2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only.
- (3) Violation rate = no. of violators in HOV lane x 100% Total no. of vehicles in HOV lane

- (4) HOV lane in operation from 5:00 to 10:00 A.M.
- (5) Observations conducted 04/15/10 at Abernathy Road Interchange.

### **SOLANO-80**

### Eastbound - P.M.

Red Top Road to Airbase Parkway

Typical data for 2010 (5)

| D | K  | PE | PΙ | $\cap$ | ח | (4) |
|---|----|----|----|--------|---|-----|
| Г | \N |    | П  | U      | u |     |

#### **PEAK HOUR**

3:00 - 6:00 PM

3:00 - 4:00 PM

| VEHICLES               | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 30       | 5                   | 11       | 0                   |
| Buses                  | 8        | 23                  | 2        | 10                  |
| Carpools (1)           | 1316     | 792                 | 435      | 283                 |
| Vanpools               | 46       | 28                  | 12       | 13                  |
| Hybrid/Single Occ. (2) | 70       | 9474                | 24       | 3225                |
| Violators              | 17       |                     | 11       |                     |
| TOTAL                  | 1487     | 10322               | 495      | 3531                |

| PERSONS                | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 30       | 5                   | 11       | 0                   |
| Buses                  | 280      | 805                 | 70       | 350                 |
| Carpools (1)           | 2695     | 1671                | 892      | 589                 |
| Vanpools               | 460      | 280                 | 120      | 130                 |
| Hybrid/Single Occ. (2) | 70       | 9474                | 24       | 3225                |
| Violators              | 17       |                     | 11       |                     |
| TOTAL                  | 3552     | 12235               | 1128     | 4294                |

#### **RATES**

| HOV Lane occupancy rate                     | 2.4 persons/veh | 2.3 persons/veh |
|---|-----------------|-----------------|
| Mixed Flow occupancy rate                   | 1.2 persons/veh | 1.2 persons/veh |
| Overall occupancy (incl. buses)             | 1.3 persons/veh | 1.3 persons/veh |
| Violation rate <sup>(3)</sup><br>(HOV Lane) | 1.1 %           | 2.2 %           |

- (2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only.
- (3) Violation rate = no. of violators in HOV lane x 100%Total no. of vehicles in HOV lane
- (4) HOV lane in operation from 3:00 to 7:00 P.M.
- (5) Observations conducted 04/21/10 at Abernathy Road Interchange.

# **SOLANO-80**

Airbase Parkway to Red Top Road

# Violation History Westbound

|           | DATE             | PERIOD<br>MONITORED | TOTAL HOVL<br>VOLUME | VIOLATION<br>RATE |
|-----------|------------------|---------------------|----------------------|-------------------|
| A.M. PEAK | Thu Apr 22, 2010 | 5:00 - 10:00 AM     | 892                  | 2.9%              |
|           |                  |                     |                      |                   |
|           |                  |                     |                      |                   |
| P.M. PEAK | Wed Apr 28, 2010 | 3:00 - 7:00 PM      | 750                  | 3.2%              |

**NOTES:** (a) Morning period of operation from 5:00 to 10:00 AM.

(b) Evening period of operation from 3:00 to 7:00 PM.

# **SOLANO-80**

Red Top Road to Airbase Parkway

# Violation History Eastbound

|           | DATE             | PERIOD<br>MONITORED | TOTAL HOVL<br>VOLUME | VIOLATION<br>RATE |
|-----------|------------------|---------------------|----------------------|-------------------|
| A.M. PEAK | Thu Apr 15, 2010 | 5:00 - 10:00 AM     | 473                  | 1.5%              |
|           |                  |                     |                      |                   |
|           |                  |                     |                      |                   |
| P.M. PEAK | Wed Apr 21, 2010 | 3:00 - 7:00 PM      | 1487                 | 1.1%              |

**NOTES:** (a) Morning period of operation from 5:00 to 10:00 AM.

(b) Evening period of operation from 3:00 to 7:00 PM.

### Southbound - A.M.

Windsor River Road to Route 12

Typical data for 2010 (5)

#### PEAK PERIOD (4)

#### **PEAK HOUR**

7:00 - 9:00 AM

8:00 - 9:00 AM

| VEHICLES               | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 14       | 7                   | 8        | 4                   |
| Buses                  | 1        | 0                   | 1        | 0                   |
| Carpools (1)           | 178      | 220                 | 97       | 114                 |
| Vanpools               | 0        | 0                   | 0        | 0                   |
| Hybrid/Single Occ. (2) | 3        | 3657                | 1        | 1922                |
| Violators              | 4        |                     | 1        |                     |
| TOTAL                  | 200      | 3884                | 108      | 2040                |

| PERSONS                | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 14       | 7                   | 8        | 4                   |
| Buses                  | 35       | 0                   | 35       | 0                   |
| Carpools (1)           | 358      | 447                 | 194      | 232                 |
| Vanpools               | 0        | 0                   | 0        | 0                   |
| Hybrid/Single Occ. (2) | 3        | 3657                | 1        | 1922                |
| Violators              | 4        | _                   | 1        |                     |
| TOTAL                  | 414      | 4111                | 239      | 2158                |

#### **RATES**

| HOV Lane occupancy rate                     | 2.1 persons/veh | 2.2 persons/veh |
|---|-----------------|-----------------|
| Mixed Flow occupancy rate                   | 1.1 persons/veh | 1.1 persons/veh |
| Overall occupancy (incl. buses)             | 1.1 persons/veh | 1.1 persons/veh |
| Violation rate <sup>(3)</sup><br>(HOV Lane) | 2.0 %           | 0.9 %           |

- (2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only.
- (3) Violation rate = no. of violators in HOV lane x 100% Total no. of vehicles in HOV lane

- (4) HOV lane in operation from 7:00 to 9:00 A.M.
- (5) Observations conducted 03/23/10 at South of Windsor River Road.

### Southbound - P.M.

Windsor River Road to Route 12

Typical data for 2010 (5)

|     | A 1/ |     |    | (4)   |
|-----|------|-----|----|-------|
| PE/ | 4K   | PER | ЮD | ( . ) |

#### **PEAK HOUR**

3:00 - 6:30 PM

5:00 - 6:00 PM

| VEHICLES                | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|-------------------------|----------|---------------------|----------|---------------------|
| Motorcycles             | 28       | 30                  | 11       | 6                   |
| Buses                   | 2        | 14                  | 0        | 3                   |
| Carpools <sup>(1)</sup> | 445      | 807                 | 137      | 233                 |
| Vanpools <sub>_</sub>   | 1        | 4                   | 1        | 0                   |
| Hybrid/Single Occ. (2)  | 5        | 5372                | 1        | 1624                |
| Violators               | 7        |                     | 0        |                     |
| TOTAL                   | 488      | 6227                | 150      | 1866                |

| PERSONS                | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 28       | 30                  | 11       | 6                   |
| Buses                  | 70       | 490                 | 0        | 105                 |
| Carpools (1)           | 911      | 1690                | 280      | 484                 |
| Vanpools               | 10       | 40                  | 10       | 0                   |
| Hybrid/Single Occ. (2) | 5        | 5372                | 1        | 1624                |
| Violators              | 7        | _                   | 0        |                     |
| TOTAL                  | 1031     | 7622                | 302      | 2219                |

#### **RATES**

| HOV Lane occupancy rate                     | 2.1 persons/veh | 2.0 persons/veh |
|---|-----------------|-----------------|
| Mixed Flow occupancy rate                   | 1.2 persons/veh | 1.2 persons/veh |
| Overall occupancy (incl. buses)             | 1.3 persons/veh | 1.3 persons/veh |
| Violation rate <sup>(3)</sup><br>(HOV Lane) | 1.4 %           | 0.0 %           |

- (2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only
- (3) Violation rate =  $\frac{\text{no. of violators in HOV lane } \times 100\%}{\text{Total no. of vehicles in HOV lane}}$
- (4) HOV lane in operation from 3:00 to 6:30 P.M.
- (5) Observations conducted 03/18/10 at South of Windsor River Road.

### Northbound - A.M.

Route 12 to Windsor River Road

Typical data for 2010 (5)

| D | EΑ          | K            | DI |                         | 10 | ח   | (4) |
|---|-------------|--------------|----|-------------------------|----|-----|-----|
|   | $\square H$ | \ <b>r</b> \ |    | $=$ $oldsymbol{\Gamma}$ |    | JU. |     |

#### **PEAK HOUR**

7:00 - 9:00 AM

8:00 - 9:00 AM

| VEHICLES               | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 15       | 16                  | 6        | 3                   |
| Buses                  | 3        | 3                   | 2        | 2                   |
| Carpools (1)           | 378      | 288                 | 223      | 153                 |
| Vanpools               | 3        | 1                   | 2        | 1                   |
| Hybrid/Single Occ. (2) | 8        | 5780                | 7        | 3174                |
| Violators              | 5        |                     | 4        |                     |
| TOTAL                  | 412      | 6088                | 244      | 3333                |

| PERSONS                | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 15       | 16                  | 6        | 3                   |
| Buses                  | 105      | 105                 | 70       | 70                  |
| Carpools (1)           | 758      | 601                 | 448      | 319                 |
| Vanpools               | 30       | 10                  | 20       | 10                  |
| Hybrid/Single Occ. (2) | 8        | 5780                | 7        | 3174                |
| Violators              | 5        | _                   | 4        |                     |
| TOTAL                  | 921      | 6512                | 555      | 3576                |

#### **RATES**

| HOV Lane occupancy rate                     | 2.2 persons/veh | 2.3 persons/veh |
|---|-----------------|-----------------|
| Mixed Flow occupancy rate                   | 1.1 persons/veh | 1.1 persons/veh |
| Overall occupancy (incl. buses)             | 1.1 persons/veh | 1.2 persons/veh |
| Violation rate <sup>(3)</sup><br>(HOV Lane) | 1.2 %           | 1.6 %           |

- (2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only.
- (3) Violation rate = no. of violators in HOV lane x 100%Total no. of vehicles in HOV lane
- (4) HOV lane in operation from 7:00 to 9:00 A.M.
- (5) Observations conducted 03/18/10 at South of Windsor River Road.

### Northbound - P.M.

Route 12 to Windsor River Road

Typical data for 2010 (5)

#### PEAK PERIOD (4)

#### **PEAK HOUR**

3:00 - 6:30 PM

5:00 - 6:00 PM

| VEHICLES               | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 46       | 32                  | 23       | 8                   |
| Buses                  | 4        | 6                   | <br>2    | 6                   |
| Carpools (1)           | 1238     | 1124                | <br>415  | 343                 |
| Vanpools               | 2        | 0                   | <br>1    | 0                   |
| Hybrid/Single Occ. (2) | 23       | 10492               | <br>7    | 3142                |
| Violators              | 23       |                     | 2        |                     |
| TOTAL                  | 1336     | 11654               | 450      | 3499                |

| PERSONS                | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 46       | 32                  | 23       | 8                   |
| Buses                  | 140      | 210                 | 70       | 210                 |
| Carpools (1)           | 2578     | 2327                | 874      | 725                 |
| Vanpools               | 20       | 0                   | 10       | 0                   |
| Hybrid/Single Occ. (2) | 23       | 10492               | 7        | 3142                |
| Violators              | 23       | _                   | 2        | _                   |
| TOTAL                  | 2830     | 13061               | 986      | 4085                |

#### **RATES**

| HOV Lane occupancy rate                     | 2.1 persons/veh | 2.2 persons/veh |
|---|-----------------|-----------------|
| Mixed Flow occupancy rate                   | 1.1 persons/veh | 1.2 persons/veh |
| Overall occupancy (incl. buses)             | 1.2 persons/veh | 1.3 persons/veh |
| Violation rate <sup>(3)</sup><br>(HOV Lane) | 1.7 %           | 0.4 %           |

- (2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only.
- (3) Violation rate = no. of violators in HOV lane x 100%

  Total no. of vehicles in HOV lane
- (4) HOV lane in operation from 3:00 to 6:30 P.M.
- (5) Observations conducted 03/17/10 at South of Windsor River Road I/C.

**Violation History** 

Windsor River road to Route 12

**Southbound** 

|           | DATE             | PERIOD<br>MONITORED | TOTAL HOVL<br>VOLUME | VIOLATION<br>RATE |
|-----------|------------------|---------------------|----------------------|-------------------|
| A.M. PEAK | Tue Mar 23, 2010 | 7:00 - 9:00 AM      | 200                  | 2.0%              |
| P.M. PEAK | Thu Mar 18, 2010 | 3:00 - 6:30 PM      | 488                  | 1.4%              |

**NOTES:** (a) Morning period of operation from 7:00 to 9:00 AM.

(b) Evening period of operation from 3:00 to 6:30 PM.

Route 12 to Windsor River Road

### **Violation History**

#### **Northbound**

|           | DATE             | PERIOD<br>MONITORED | TOTAL HOVL<br>VOLUME | VIOLATION<br>RATE |
|-----------|------------------|---------------------|----------------------|-------------------|
| A.M. PEAK | Thu Mar 18, 2010 | 7:00 - 9:00 AM      | 412                  | 1.2%              |
| P.M. PEAK | Wed Mar 17, 2010 | 3:00 - 6:30 PM      | 1336                 | 1.7%              |

**NOTES:** (a) Morning period of operation from 7:00 to 9:00 AM.

(b) Evening period of operation from 3:00 to 6:30 PM.

### Southbound - A.M.

Route 12 to Wilfred Avenue.

Typical data for 2010 (5)

7:00 - 9:00 AM

8:00 - 9:00 AM

| VEHICLES               | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 18       | 6                   | 12       | 1                   |
| Buses                  | 29       | 3                   | 17       | 2                   |
| Carpools (1)           | 451      | 257                 | 260      | 117                 |
| Vanpools               | 2        | 1                   | 1        | 1                   |
| Hybrid/Single Occ. (2) | 26       | 7520                | 12       | 3907                |
| Violators              | 23       |                     | 12       | _                   |
| TOTAL                  | 549      | 7787                | 314      | 4028                |

| PERSONS                | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 18       | 6                   | 12       | 1                   |
| Buses                  | 1015     | 105                 | 595      | 70                  |
| Carpools (1)           | 943      | 562                 | 539      | 270                 |
| Vanpools               | 20       | 10                  | 10       | 10                  |
| Hybrid/Single Occ. (2) | 26       | 7520                | 12       | 3907                |
| Violators              | 23       |                     | 12       | _                   |
| TOTAL                  | 2045     | 8203                | 1180     | 4258                |

#### **RATES**

| HOV Lane occupancy rate                     | 3.7 persons/veh | 3.8 persons/veh |
|---|-----------------|-----------------|
| Mixed Flow occupancy rate                   | 1.1 persons/veh | 1.1 persons/veh |
| Overall occupancy (incl. buses)             | 1.2 persons/veh | 1.3 persons/veh |
| Violation rate <sup>(3)</sup><br>(HOV Lane) | 4.2 %           | 3.8 %           |

- (2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only.
- (3) Violation rate = no. of violators in HOV lane x 100% Total no. of vehicles in HOV lane

- (4) HOV lane in operation from 7:00 to 9:00 A.M.
- (5) Observations conducted 04/29/10 at South of Hearn Ave. I/C.

### Southbound - P.M.

Route 12 to Wilfred Avenue

Typical data for 2010 (5)

| _  |     |   | _ | _ | _  | _ | _  | (4) |
|----|-----|---|---|---|----|---|----|-----|
| ΡĿ | ΞΑ  | ĸ | μ | H | ΚI | n | I) | (+) |
|    | _/\ |   |   | _ | •  | • | _  |     |

#### **PEAK HOUR**

3:00 - 6:30 PM

4:00 - 5:00 PM

| VEHICLES                | HOV Lane | Mixed Flow<br>Lanes |   | HOV Lane | Mixed Flow<br>Lanes |
|-------------------------|----------|---------------------|---|----------|---------------------|
| Motorcycles             | 70       | 16                  | _ | 23       | 8                   |
| Buses                   | 21       | 2                   | _ | 5        | 0                   |
| Carpools <sup>(1)</sup> | 2272     | 911                 | _ | 666      | 404                 |
| Vanpools <sub>_</sub>   | 4        | 5                   | _ | 1        | 2                   |
| Hybrid/Single Occ. (2)  | 52       | 12050               | _ | 21       | 3937                |
| Violators               | 23       |                     | _ | 1        |                     |
| TOTAL                   | 2442     | 12984               |   | 717      | 4351                |

| PERSONS                | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 70       | 16                  | 23       | 8                   |
| Buses                  | 735      | 70                  | 175      | 0                   |
| Carpools (1)           | 4669     | 1933                | 1364     | 844                 |
| Vanpools               | 40       | 50                  | 10       | 20                  |
| Hybrid/Single Occ. (2) | 52       | 12050               | 21       | 3937                |
| Violators              | 23       | _                   | 1        |                     |
| TOTAL                  | 5589     | 14119               | 1594     | 4809                |

#### **RATES**

| HOV Lane occupancy rate                     | 2.3 persons/veh | 2.2 persons/veh |
|---|-----------------|-----------------|
| Mixed Flow occupancy rate                   | 1.1 persons/veh | 1.1 persons/veh |
| Overall occupancy (incl. buses)             | 1.3 persons/veh | 1.3 persons/veh |
| Violation rate <sup>(3)</sup><br>(HOV Lane) | 0.9 %           | 0.1 %           |

- (2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only
- (3) Violation rate = no. of violators in HOV lane x 100%Total no. of vehicles in HOV lane
- (4) HOV lane in operation from 3:00 to 6:30 P.M.
- (5) Observations conducted 04/22/10 at South of Hearn Avenue I/C.

### Northbound - A.M.

Wilfred Avenue to Route 12

Typical data for 2010 (5)

#### PEAK PERIOD (4)

#### **PEAK HOUR**

7:00 - 9:00 AM

8:00 - 9:00 AM

| VEHICLES               | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 25       | 10                  | 9        | 6                   |
| Buses                  | 6        | 4                   | 4        | 2                   |
| Carpools (1)           | 543      | 456                 | 269      | 198                 |
| Vanpools               | 3        | 4                   | 2        | 2                   |
| Hybrid/Single Occ. (2) | 24       | 5915                | 11       | 3149                |
| Violators              | 27       |                     | 13       |                     |
| TOTAL                  | 628      | 6389                | 308      | 3357                |

| PERSONS                | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 25       | 10                  | 9        | 6                   |
| Buses                  | 210      | 140                 | 140      | 70                  |
| Carpools (1)           | 1123     | 973                 | 550      | 416                 |
| Vanpools _             | 30       | 40                  | 20       | 20                  |
| Hybrid/Single Occ. (2) | 24       | 5915                | 11       | 3149                |
| Violators              | 27       |                     | 13       | _                   |
| TOTAL                  | 1439     | 7078                | 743      | 3661                |

#### **RATES**

| HOV Lane occupancy rate                     | 2.3 persons/veh | 2.4 persons/veh |
|---|-----------------|-----------------|
| Mixed Flow occupancy rate                   | 1.1 persons/veh | 1.1 persons/veh |
| Overall occupancy (incl. buses)             | 1.2 persons/veh | 1.2 persons/veh |
| Violation rate <sup>(3)</sup><br>(HOV Lane) | 4.3 %           | 4.2 %           |

**NOTES:** (1) Two or more occupants per vehicle.

- (2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only.
- (3) Violation rate =  $\underline{no. of violators in HOV lane \ x \ 100\%}$

Total no. of vehicles in HOV lane

- $(4) \ \ HOV\ lane\ in\ operation\ from\ 7:00\ to\ 9:00\ A.M.$
- (5) Observations conducted 05/04/10 at North of Todd Road I/C.

### Northbound - P.M.

Wilfred Avenue to Route 12

Typical data for 2010 (5)

| K  | DED |     | (4) |
|----|-----|-----|-----|
| ۱n | PER | IOD | ` ' |

#### **PEAK HOUR**

3:00 - 6:30 PM

4:00 - 5:00 PM

| VEHICLES               | HOV Lane | Mixed Flow<br>Lanes |   | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|---|----------|---------------------|
| Motorcycles            | 66       | 15                  | _ | 25       | 6                   |
| Buses                  | 21       | 3                   | _ | 8        | 3                   |
| Carpools (1)           | 1517     | 672                 | _ | 522      | 231                 |
| Vanpools               | 10       | 1                   | _ | 3        | 0                   |
| Hybrid/Single Occ. (2) | 30       | 11911               | _ | 7        | 3677                |
| Violators              | 26       |                     | _ | 6        |                     |
| TOTAL                  | 1670     | 12602               |   | 571      | 3917                |

| PERSONS                | HOV Lane | Mixed Flow<br>Lanes | HOV Lane | Mixed Flow<br>Lanes |
|------------------------|----------|---------------------|----------|---------------------|
| Motorcycles            | 66       | 15                  | 25       | 6                   |
| Buses                  | 735      | 105                 | 280      | 105                 |
| Carpools (1)           | 3109     | 1401                | 1089     | 480                 |
| Vanpools               | 100      | 10                  | 30       | 0                   |
| Hybrid/Single Occ. (2) | 30       | 11911               | 7        | 3677                |
| Violators              | 26       |                     | 6        |                     |
| ΤΟΤΔΙ                  | 4066     | 13442               | 1437     | 4268                |

#### **RATES**

| HOV Lane occupancy rate         | 2.4 persons/veh | 2.5 persons/veh |
|---------------------------------|-----------------|-----------------|
| Mixed Flow occupancy rate       | 1.1 persons/veh | 1.1 persons/veh |
| Overall occupancy (incl. buses) | 1.2 persons/veh | 1.3 persons/veh |
| Violation rate (3) (HOV Lane)   | 1.6 %           | 1.1 %           |

- (2) Hybrid HOV Lane only/Single Occupancy mixed flow lanes only.
- (3) Violation rate = no. of violators in HOV lane x 100%Total no. of vehicles in HOV lane
- (4) HOV lane in operation from 3:00 to 6:30 P.M.
- (5) Observations conducted 03/23/10 at North of Todd Road I/C.

Route 12 to Wilfred Avenue

### **Violation History**

#### **Southbound**

**VIOLATION** 

#### A.M. PEAK

| DATE             | MONITORED      | VOLUME | RATE |
|------------------|----------------|--------|------|
| Thu Apr 29, 2010 | 7:00 - 9:00 AM | 549    | 4.2% |
| Thu May 7, 2009  | 7:00 - 9:00 AM | 687    | 4.4% |
| Tue Apr 29, 2008 | 7:00 - 9:00 AM | 699    | 4.1% |
| Thu Mar 22, 2007 | 7:00 - 9:00 AM | 781    | 4.4% |
| Wed Oct 18, 2006 | 7:00 - 9:00 AM | 705    | 4.7% |
| Thu Mar 10, 2005 | 7:00 - 9:00 AM | 1023   | 3.8% |
| Thu Oct 7, 2004  | 7:00 - 9:00 AM | 772    | 2.2% |
| Thu Apr 10, 2003 | 6:30 - 9:30 AM | 997    | 4.8% |
| Tue Dec 10, 2002 | 6:30 - 9:30 AM | 951    | 5.8% |
|                  |                |        |      |

**TOTAL HOVL** 

**PERIOD** 

#### P.M. PEAK

| Thu Apr 22, 2010 | 3:00 - 6:30 PM | 2442 | 0.9% |
|------------------|----------------|------|------|
| Wed Apr 29, 2009 | 3:00 - 6:30 PM | 2563 | 1.0% |
| Wed Apr 16, 2008 | 3:00 - 6:30 PM | 2276 | 2.2% |
| Thu Sep 27, 2007 | 3:00 - 6:30 PM | 2223 | 2.7% |
| Thu Apr 27, 2006 | 3:00 - 6:30 PM | 2277 | 3.6% |
| Wed Mar 9, 2005  | 3:00 - 6:30 PM | 1967 | 3.9% |
| Thu Oct 28, 2004 | 3:00 - 6:30 PM | 2809 | 1.2% |
| Thu Apr 10, 2003 | 3:00 - 7:00 PM | 2224 | 2.7% |
| Tue Dec 10, 2002 | 3:00 - 7:00 PM | 1645 | 2.9% |
|                  |                |      |      |

**NOTES:** (a) Morning period of operation from 7:00 to 9:00 AM.

(b) Evening period of operation from 3:00 to 6:30 PM.

### **Violation History**

Wilfred Avenue to Route 12

#### **Northbound**

**VIOLATION** 

#### A.M. PEAK

| DATE             | MONITORED      | VOLUME | RATE |
|------------------|----------------|--------|------|
| Tue May 4, 2010  | 7:00 - 9:00 AM | 628    | 4.3% |
| Thu May 28, 2009 | 7:00 - 9:00 AM | 702    | 4.0% |
| Thu Oct 16, 2008 | 7:00 - 9:00 AM | 790    | 3.3% |
| Wed Mar 28, 2007 | 7:00 - 9:00 AM | 918    | 3.5% |
| Wed Oct 25, 2006 | 7:00 - 9:00 AM | 807    | 3.5% |
| Tue Mar 15, 2005 | 7:00 - 9:00 AM | 836    | 4.9% |
| Thu Oct 14, 2004 | 7:00 - 9:00 AM | 666    | 4.4% |
| Wed Apr 9, 2003  | 6:30 - 9:30 AM | 839    | 6.0% |
| Thu Dec 5, 2002  | 6:30 - 9:30 AM | 696    | 6.6% |
|                  |                |        |      |

TOTAL HOVL

PERIOD

#### P.M. PEAK

| Tue Mar 23, 2010 | 3:00 - 6:30 PM | 1670 | 1.6% |
|------------------|----------------|------|------|
| Thu Mar 26, 2009 | 3:00 - 6:30 PM | 1988 | 1.2% |
| Thu Oct 16, 2008 | 3:00 - 6:30 PM | 1766 | 1.0% |
| Tue Mar 27, 2007 | 3:00 - 6:30 PM | 1982 | 1.4% |
| Thu Apr 13, 2006 | 3:00 - 6:30 PM | 1907 | 3.7% |
| Thu Oct 6, 2005  | 3:00 - 6:30 PM | 2263 | 2.0% |
| Thu Oct 21, 2004 | 3:00 - 6:30 PM | 1945 | 2.2% |
| Thu Oct 16, 2003 | 3:00 - 7:00 PM | 2172 | 3.2% |
| Thu Dec 5, 2002  | 3:00 - 7:00 PM | 2145 | 1.9% |
|                  |                |      |      |

**NOTES:** (a) Morning period of operation from 7:00 to 9:00 AM.

(b) Evening period of operation from 3:00 to 6:30 PM.

**VOLUME/PERSON DATA** 

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### Westbound - A.M.

Typical data for 2010

# Richmond-San Rafael Bridge Toll Plaza

**CONTRA COSTA - 580** 

| PI   | <b>EAK PERIOD</b> (2)<br>6:00 - 10:00 AM                       | <b>PEAK HOUR</b><br>7:00 - 8:00 AM |
|--|--|------------------------------------|
| Motorcycles Buses Vanpools Carpools (1) Total HOVs  1 Occupancy 2 Occupancy TOTAL          | 47 24 18 879 968 1073 329 2370                                 | 16 3 3 390 412 267 114 793         |
| PERSONS  Motorcycles Buses Vanpools Carpools (1) Total HOVs  1 Occupancy 2 Occupancy TOTAL | 47<br>840<br>180<br>2579<br><b>3646</b><br>1073<br>658<br>5377 | 16 105 30 1119 1270 267 228 1765   |
| RATES HOV  | 3.8 persons/veh  | 3.1 persons/veh                    |
| Occupancy Rate Mixed Flow Occupancy Rate   | 1.2 persons/veh  | 1.3 persons/veh                    |
| Overall Occupancy (incl. buses)  | 2.3 persons/veh  | 2.2 persons/veh                    |

**NOTES:** (1) 3 or more persons per vehicle & 2 - seater vehicles with 2 persons.

- (2) HOV operation hours from 5:00 to 10:00 AM and 3:00 to 6:00 PM.
- (3) Observations conducted 3/24/10 at Toll Plaza.

### Westbound - P.M.

Richmond-San Rafael Bridge Toll Plaza

CONTRA COSTA - 580

Typical data for 2010

| F                               | PEAK PERIOD (2)<br>3:00 - 6:00 PM | <b>PEAK HOUR</b><br>3:00 - 4:00 PM |
|---------------------------------|-----------------------------------|------------------------------------|
| VEHICLES                        | 5.55 5.55 m                       | 0.00 - 4.00 F M                    |
| Motorcycles                     | 42                                | 14                                 |
| Buses                           | 5                                 | 4                                  |
| Vanpools                        | 19                                | 9                                  |
| Carpools (1)                    | 248                               | 96                                 |
| Total HOVs                      | 314                               | 123                                |
| 1 Occupancy                     | 767                               | 275                                |
| 2 Occupancy                     | 363                               | 141                                |
| TOTAL                           | 1444                              | 539                                |
| PERSONS                         |                                   |                                    |
| Motorcycles                     | 42                                | 14                                 |
| Buses                           | 175                               | 140                                |
| Vanpools                        | 190                               | 90                                 |
| Carpools <sup>(1)</sup>         | 1101                              | 421                                |
| Total HOVs                      | 1508                              | 665                                |
| 1 Occupancy                     | 767                               | 275                                |
| 2 Occupancy                     | 726                               | 282                                |
| TOTAL                           | 3001                              | 1222                               |
| RATES                           |                                   |                                    |
| HOV<br>Occupancy Rate           | 4.8 persons/veh                   | 5.4 persons/veh                    |
| Mixed Flow Occupancy Rate       | 1.3 persons/veh                   | 1.3 persons/veh                    |
| Overall Occupancy (incl. buses) | 2.1 persons/veh                   | 2.3 persons/veh                    |

**NOTES:** (1) 3 or more persons per vehicle & 2 - seater vehicles with 2 persons.

- (2) HOV operation hours from 5:00 to 10:00 AM and 3:00 to 6:00 PM.
- $(3) \ \ Observations \ conducted \ 3/24/10 \ at \ Toll \ Plaza.$

### Northbound A.M.

**Antioch Bridge Toll Plaza** 

**CONTRA COSTA -160** 

Typical data for 2010 (3)

|   | PEAK PERIOD (2)<br>6:00 to 9:00 A.M. | PEAK HOUR<br>7:00 to 8:00 A.M.                    |
|---|--------------------------------------|---|
| VEHICLES  |                                      |   |
| Motorcycles Buses Vanpools Carpools (1) Total HOV 1 Occupancy 2 Occupancy TOTAL | 3 3 5 13 24 1032 89 1145             | 1<br>0<br>0<br>9<br><b>10</b><br>368<br>47<br>425 |
| PERSONS  Motorcycles  | 3                                    | 1   |
| Buses<br>Vanpools<br>Carpools <sup>(1)</sup><br>Total HOV                       | 105<br>50<br>40<br>198               | 0<br>0<br>28<br><b>29</b>                         |
| 1 Occupancy<br>2 Occupancy<br><b>TOTAL</b>                                      | 1032<br>178<br>1408                  | <u>368</u><br><u>94</u><br>491                    |
| RATES   |                                      |   |
| HOV Ocupancy<br>Rate  | 8.3 persons/veh                      | 2.9 persons/veh                                   |
| Overall occupancy (incl. buses)   | 1.2 persons/veh                      | 1.2 persons/veh                                   |

- **NOTES:** (1) 3 or more occupants per vehicle & 2-seater vehicles w/2 occupants.
  - (2) HOV operation hours 5:00 to 10:00 AM.
  - (3) Observations conducted 4/13/10 at Toll Plaza

### Northbound P.M.

**Antioch Bridge Toll Plaza** 

**CONTRA COSTA -160** 

Typical data for 2010 (3)

|   | PEAK PERIOD (2)<br>3:00 to 6:00 P.M.              | <b>PEAK HOUR</b> 3:00 to 4:00 P.M.                   |
|---|---|--|
| VEHICLES  |   |  |
| Motorcycles Buses Vanpools Carpools (1) Total HOV                               | 15<br>0<br>5<br>21                                | 3<br>0<br>3<br>9<br>15                               |
| 1 Occupancy<br>2 Occupancy<br>TOTAL   | 1081<br>213<br>1335                               | 409<br>85<br>509                                     |
| PERSONS   |   |  |
| Motorcycles Buses Vanpools Carpools (1) Total HOV 1 Occupancy 2 Occupancy TOTAL | 15<br>0<br>50<br>65<br>130<br>1081<br>426<br>1637 | 3<br>0<br>30<br>28<br><b>61</b><br>409<br>170<br>640 |
| RATES   |   |  |
| HOV Ocupancy<br>Rate  | 3.2 persons/veh                                   | 4.1 persons/veh                                      |
| Overall occupancy (incl. buses)   | 1.2 persons/veh                                   | 1.3 persons/veh                                      |

- **NOTES:** (1) 3 or more occupants per vehicle & 2-seater vehicles w/2 occupants.
  - (2) HOV operation hours 3:00 to 7:00 PM.
  - (3) Observations conducted 4/15/10 at Toll Plaza

# **EXPRESS LANE**

**VOLUME DATA** 

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### **ALAMEDA-680**

**TOTAL** 

### **Express Lane**

**Southbound** 

Typical data for 2010 (2)

Route 84 to ALA/SCL Co. Line

PEAK PERIOD (1)

6:00 - 10:00 AM

**PEAK HOUR** 

8:00 - 9:00 AM

**VEHICLES** 

| Express Lane | Mixed Flow<br>Lanes |
|--------------|---------------------|
| 2425         | 22220               |

|              | Mixed Flow |
|--------------|------------|
| Express Lane | Lanes      |
|              |            |

6134

1058

**NOTES:** (1) Express Lane in operation from 5:00 A.M. to 8:00 P.M.

(2) Data from the PeMS database collected on 10/12/10 at Mission Blvd. (SR 238)